



ROYAL COMMISSION
LABOUR IN INDIA

WRITTEN EVIDENCE.

Vol. IV.—Part 1.

BIHAR AND ORISSA with Coalfields.

LONDON.

PRINTED AND PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE

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NOTE TO PART I.

In this part is reproduced the bulk of the evidence submitted to the Commission in the form of written memoranda in reply to the list of subjects circulated in August 1929. In preparing this volume the Commission have sought to retain all matter likely to be of permanent interest to students of the subject, and not available elsewhere. Material supplied to the Commission which has already been printed and published elsewhere has in general not been reproduced. Where memoranda have been abridged all considerable omissions have been indicated in the text.

TERMS OF REFERENCE.

“To inquire into and report on the existing conditions of labour in industrial undertakings and plantations in British India, on the health, efficiency and standard of living of the workers, and on the relations between employers and employed, and to make recommendations.”

NOTE.—“Industrial undertaking” for the purpose of the Commission is interpreted as in Article I of the Washington Hours Convention, which is as follows :—

“For the purpose of this Convention, the term ‘industrial undertaking’ includes particularly :—

“(a) Mines, quarries, and other works for the extraction of minerals from the earth.

“(b) Industries in which articles are manufactured, altered, cleaned, repaired, ornamented, finished, adapted for sale, broken up or demolished, or in which materials are transformed; including shipbuilding and the generation, transformation and transmission of electricity or motive power of any kind.

“(c) Construction, reconstruction, maintenance, repair, alteration, or demolition of any building, railway, tramway, harbour, dock, pier, canal, inland waterway, road, tunnel, bridge, viaduct, sewer, drain, well, telegraphic or telephonic installation, electrical undertaking, gaswork, waterwork or other work of construction, as well as the preparation for or laying the foundations of any such work or structure.

“(d) Transport of passengers or goods by road, rail, sea, or inland waterway, including the handling of goods at docks, quays, wharves or warehouses, but excluding transport by hand.”

* * * * *

The competent authority in each country shall define the line of division which separates industry from commerce and agriculture.

M15RCL

LIST OF SUBJECTS.

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* This word should be read as indicating generally the changes in composition of the labour staff of an undertaking.

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ROYAL COMMISSION ON LABOUR IN INDIA.

FINAL MEMORANDUM OF THE GOVERNMENT OF BIHAR AND ORISSA.

PRELIMINARY STATEMENT.

Number of persons employed in :—

Census year.	Total number of persons employed in industry.	Coal mines.	Mica mines.	Iron and steel works.	Machinery and engineering works.	Sugar factories.
1911	179,714	86,878	10,840	5,077	562	2,559
1921	219,974	103,315	12,804	25,735	8,181	4,948
Figures of C. I. mines for 1927.	—	108,842	13,418	—	—	—
Figures of C. I. factories for 1928.	—	—	—	21,052	7,514	5,534

Even allowing for the fact that the number of persons employed in industry is only the actual number so employed and does not include families of industrial workers, it can be seen that the number of persons connected with industrial concerns in this province represents a very small part of the population of the province.

It is also perhaps noticeable that in the Jharia thana of the Dhanbad sub-division of the Manbhum district, the population at the last census was 180,072, which gave 887 persons per square mile. Therefore, even in this area, which is probably the most heavily populated area in the Jharia coalfield, the density of population is less than that in the Muzaffarpur district (907), which is purely an agricultural district.

It must, however, also be noted that a considerable number of labourers migrate from Bihar and Orissa to other provinces for industrial or other works. Thus at the time of the census of 1921, 459,497 persons from the Chota Nagpur plateau were recorded in Bengal, and 403,784 were recorded in Assam. There is also migration from Bihar to the jute mills.

I.—RECRUITMENT.

(1) (i) Two statements are given below, taken from the last census report, showing the birthplace of persons engaged in industry :—

Birthplace of skilled workers classified according to their industry and occupation.

Census year.	Class of industry.	Born in district or states of enumeration in Bihar and Orissa.	Born in contiguous districts and states of Bihar and Orissa and other provinces.	Born in non-contiguous districts and states of Bihar and Orissa and other provinces.	Total.
21	Coal mines.. ..	19,132	10,416	9,411	38,959
21	Mica mines	3,837	347	24	4,208
21	Iron and steel works ..	1,184	1,028	7,017	9,229
21	Machinery and engineering works.	1,951	607	946	3,504

Note.—Figures in columns 4 and 5 are approximate, and figures in column 4 include a certain number of persons who should be enumerated in column 5.

Birth place of unskilled labourers classified according to their industry and occupation.

Census year.	Class of industry.	Born in district or states of enumeration in Bihar and Orissa.	Born in contiguous districts and states of Bihar and Orissa and other provinces.	Born in non-contiguous districts and states of Bihar and Orissa and other provinces.	Total
1921	Coal mines.. ..	28,191	14,614	17,909	60,714
1921	Mica mines	7,034	934	64	8,032
1921	Iron and steel works ..	6,870	4,311	3,413	14,594
1921	Machinery and engineering works.	2,567	770	914	4,251

Note.—Figures in columns 4 and 5 are approximate, and figures in column 4 include a certain number of persons who should be enumerated in column 5.

A. Jharia Coalfield.—The fluctuation of labour as a result of agricultural condition is still very marked. An instance is given in the census report for the year 1918–19, which shows that in the third quarter of 1918 the labour population of collieries was about 65,000. When the rains failed in September of that year, the number began to rise; in the last quarter of 1918 the population numbered 80,000, and in the first quarter of 1919 when the pinch of scarcity was actually felt, it reached 100,000. The collieries, therefore, had very little trouble in connection with their labour in 1919, but when the agricultural situation improved in 1920, constant complaints were again heard of shortage of labour. The figures given in the annual reports of the Chief Inspector of Mines for the total output of the Jharia coalfield show very clearly the effect of agricultural operations on mining output, and it will invariably be seen that there is a drop in output at three periods of the year:—(a) In March–April, at the time when marriages are frequent; (b) In June–July, at the time of sowing; (c) In November–December, at the time of harvest.

It is commonly stated in the coalfields that if the condition of harvest and rainfall could be known at the beginning of the year it would be possible to prepare an accurate graph showing the monthly output of the coalfield for the year. The extent of the variation in the labour force in some collieries is shown in the table below, which shows the total labour force on seven collieries on that date (during the last 12 months) on which the maximum labour force was employed, and on 26th July, 1929 (a date when a large amount of labour was absent for sowing), and it will be seen that the labour force in July was only two-thirds of the maximum labour force. In November the proportion would probably be lower:—

Statement showing number of workers employed in various collieries.

		Maximum number employed.				Number employed		
		On any date in last twelve months.				On 26th July, 1929.		
		Date.	Male.	Female.	Total.	Male.	Female.	Total.
Standard.. ..	..	28th September, 1929	1,606	489	2,095	1,412	322	1,734
Bhowra .. ..	..	23rd March, 1929 ..	1,773	955	2,728	1,023	403	1,426
Gasliband .. ..	..	Not known	792	523	1,315	635	197	832
Gopalichak .. ..	..	..	..	..	..	..	..	..
" (East) .. ..	..	..	..	..	..	..	..	..
" (West) .. ..	..	..	..	..	..	..	..	..
Central Kirkend ..	..	27th February, 1929	2,038	668	2,706	1,547	423	1,970
Lodna .. ..	..	Not known	1,823	1,144	2,967	1,639	460	2,099
Bhuggutdih .. ..	..	Not known	1,340	373	1,713	754	232	986
Pure Jharia .. ..	..	31st December, 1929	246	191	437	178	84	262
Total .. ..	..	.. ..	9,618	4,343	13,961	7,188	2,121	9,309

A colliery contractor states: "It is customary for labour to return to their villages to work on the land about the first or second week in July until late in August or early September for planting. The labour returns to collieries for a short

while and again goes back to the land for harvesting about the latter part of October. If the harvest is poor the labour returns to the collieries by mid-December, and if good by the end of December or sometimes as late as middle of January."

A table is given below showing the birthplaces of labour in the whole of the Jharia coalfields as recorded in the census of 1921, and as at present in July in certain mines from whom reports have been received. The reports received are insufficient to give an accurate picture of the birthplaces of the labour force, but they possibly indicate two features wherein the present labour force differs from that at the time of the census. These are an increase in the labour force coming to the coalfield from the Monghyr district and an increase in the labour force coming from United Provinces districts; the latter labour is almost exclusively employed in drilling:—

	Total employed.	Manbhum and Bankura.	Hazaribagh	Santal Parganas.	Gaya.	Monghyr.	Other Bihar and Orissa districts.	Bengal districts.	Central Provinces districts.	United Provinces districts.	Other Provinces.	Uncertain.
Census, 1921:—												
(a) Persons	97,245	36,717	18,188	2,559	8,951	14,777	3,223	1,213	7,764	1,852	97	1,904
(b) Percentage to total	—	37.75	18.70	2.62	9.20	15.19	2.92	1.24	7.98	1.87	0.09	1.95
Collieries:—												
Standard	1,734	554	209	—	118	473	40	20	56	264	—	—
Bhowra	1,436	736	67	2	198	294	21	11	52	3	2	—
Pure Jharia	262	107	2	24	50	63	—	3	2	—	9	—
Kirkend	148	30	66	—	14	38	—	—	—	—	—	—
Total	3,580	1,427	344	26	380	868	61	34	110	267	11	—
Percentage to total	—	39.86	9.60	0.72	10.61	24.24	1.70	0.94	3.07	7.45	0.30	—

Reports received from other mines give the following as birthplaces of their labour:—

East India Coal Company, Ltd., recruits its labour from Arrah, Gaya, Hazaribagh, Monghyr, Manbhum, Santal Parganas in Bihar and Orissa, from Bilaspur and Raipur in the Central Provinces, from Bareilly in the United Provinces, from the Punjab, and occasionally from Madras.

Gopalchak and Central Kirkend collieries recruit their labour from Santal Parganas, Hazaribagh and Patna districts, in about equal proportions. They state, however, that during the monsoon the labour force from the districts mentioned above is reduced to about 40 to 50 per cent., and during that period labour from the Central and United Provinces is recruited, but the number available only brings up the labour force to 75 per cent. of the average during the cold weather.

Bhuggutdih colliery reports that 25 per cent. of its labour is local and the remaining 75 per cent. is drawn from the Santal Parganas, Hazaribagh and Monghyr districts in about equal proportions and that during the monsoon the labour force from the districts mentioned above is reduced to at least about 50 per cent.

Loyabad.—Labour employed is either local labour or recruited from the Santal Parganas, Gaya, or Hazaribagh districts, with a few workers from the United Provinces districts.

B. *Mica Mines and Splitting Factories.*—Practically all labour is local, though there is a certain amount of what is called *pardesi* labour, that is labour coming from some 14 or 15 miles away from the factory or mine.

The labour force uses the mica mines and factories as a means of adding to its earnings from agriculture and there is a reduction in the labour force at times of sowing and harvest. A noticeable point about the labour force is that whereas in the coal mines drillers are largely recruited from the Central Provinces and United Provinces, in the mica mines all drillers are recruited locally and found to be quite satisfactory.

C. *Iron Mines.*—Bengal Iron Company had a total of 133 males and 651 females working on 26th July. Nearly the whole of the labour force comes from the Singhbhum district or the neighbouring Feudatory States, though there are approximately 150 workers who come from Bilaspur or Raipur in the Central Provinces.

D. Factories.—Generally, the labour employed in factories is solely local. In the sugar, oil, rice and tobacco factories the great bulk of unskilled labour is drawn from the neighbouring villages and sometimes from the neighbouring districts. In some factories (e.g., in the Purnea and Balasore districts) there is some female labour from Chota Nagpur, and in the extreme north, on the borders of Nepal, male and female labour from the Nepal tarai is found. The percentage of local recruitment in the case of skilled labour is not so marked; in some cases local labour is trained, but in many instances trained men are imported from urban and industrial areas, sometimes from neighbouring provinces.

Jamshedpur.—In Jamshedpur conditions are different.

(a) Tata's Iron and Steel Works (*see* Company's memorandum).

(b) The Tatanagar Foundry state that skilled labour comes mostly from Orissa and Bengal districts non-contiguous to Singhbhum, while their unskilled labour comes mostly from the Singhbhum district.

(c) In the Tin Plate Company, labour is drawn mainly from the Punjab, United Provinces, Bihar and Orissa, Bengal, Assam, Madras and South India. About 10 per cent. of the labour is local, i.e., Santhalis.

(ii) (a) The reasons that induce labour (resident in the province) which would normally prefer to remain engaged in agricultural work to work in industrial concerns may be summarized as the desire to add to the income of the family from agriculture. This desire may arise from indebtedness of the family, or insufficiency of agricultural work to support the family.

(b) The main feature of practically all classes of labour in the province is the desire to return to their lands in important agricultural seasons and there is, therefore, considerable migration from practically all labour fields at this time.

(c) There is generally no particular reason for any particular stream of migration from any particular district. Connection is obtained with the factory or mine either as a result of scarcity in the home district or as a result of a desire to earn more in order to supplement agricultural wages, and this connection once established is maintained. Other members of the same or neighbouring villages see what their fellow-villager earns and obtain from him information regarding the conditions of work. There have, however, been two fairly large streams of migration. The first was that of the Bilaspuris into the coalfields. These Bilaspuris arrived in the first instance to work on railway construction and thereby established a connection, and since then the employment of Bilaspuris from the Bilaspur and Raipur districts of the Central Provinces has continued, and though the numbers vary and the miners often return to their native villages there is always in the coalfields a considerable force of labour from Bilaspur and Raipur. The second was an influx of some 7,000 people in 1920 from the Central Provinces into Jamshedpur. This influx was due in the main to severe famine conditions prevailing in the native states comprising part of that province. This labour, which is called "Chattisgarhia", has remained resident in Jamshedpur and remains as more or less a permanent labour force, and Messrs. Tatas Iron and Steel Works report that about half of their daily rated unskilled labour is recruited from this force.

(iii) There have been practically no changes in recent years, though the Manager of the Tatanagar Foundry reports that he finds it more difficult to recruit skilled labour from Orissa and Bengal, because such labour has found that wages are not as high as they appear on account of the high cost of living at Jamshedpur, while also the company states that there is some unwillingness among this labour to engage in any industrial work because an idea has developed (based on experience of cooly lines in certain Bengal mills) that industrial labour is apt to be short-lived.

2. Contact with Villages.

A. Jharia Coalfields.—(i) A committee which was held in 1917 found (a) that 15 per cent. of the colliery labour in the Jharia coalfield was settled and that this was mostly Santali labour, that 75 per cent. came for weeks or months together and lived in *dhowras* provided by mines, and that 15 per cent. lived in their own villages; (b) that there was no sign of a labour force divorced from agriculture coming into existence; (c) that it was necessary in order to induce a family to settle, for the mine managers to provide land for cultivation, and that as at Jharia there was a shortage of land, it was impossible to settle miners in the same manner as was done at Raniganj or Giridih fields.

(ii) Some mine managers, especially those in charge of old established mines, however, report that a higher percentage of the labour force is now settled. Thus Lodna, which is the oldest mine in the Jharia coalfield, estimates that 65 per cent.

of its labour is settled even though the company has no land to give the miner. Loyabad, the second oldest mine, estimates that 50 per cent. of the labour force is settled and is mostly housed in houses provided by the colliery. In some cases the grandfathers of labour now employed on both these two collieries had worked on the mines. Standard colliery estimates that 75 per cent. of its labour is settled. Bhowra colliery estimates about 50 per cent. of its skilled labour and 30 per cent. of its unskilled labour as settled. Bhuggutdih estimates 25 per cent. is settled. The mine managers apparently mean by "settled labour" labour that works fairly regularly and pays one or two visits to its home. Generally, skilled labour is reasonably settled and visits its home once a year. Unskilled labour probably visits its home more often.

(iii) In Loyabad colliery each miner is given a token number at the beginning of the year and this miner retains this token number throughout the year; it is, therefore, possible in this colliery to trace the history of a year's working of any individual miner. A statement has been furnished by this colliery showing for No. 8 pit the birthplace of each miner, the number of days in each week on which each miner worked, and the number of tubs raised by each miner during the year 26th July, 1928, to 29th June, 1929. This period was selected, as it was stated by the mine manager, to be a period of more or less normal working. From this statement the following figures have been extracted :—

STATEMENT A.

Number of weeks on which miners classified by birth districts worked.

(i) *Period 26th July, 1928, to 11th January, 1929.*

	Total workers.	27 weeks.	26 weeks.	25 weeks.	24 weeks.	23 weeks.	22 weeks.	21 weeks.	20 weeks.	19 weeks.	18 weeks.	17 weeks.
Allahabad	10	1	1	—	—	—	—	—	2	1	—	—
Hazaribagh.. ..	17	—	—	1	4	—	—	2	—	—	—	1
Manbhum	98	6	6	4	11	4	9	5	12	6	7	7
Monghyr	16	—	1	—	—	—	—	—	1	—	—	—
Pratapgarh.. ..	1	1	—	—	—	—	—	—	—	—	—	—
Santal Parganas ..	81	3	6	5	8	9	4	6	4	1	5	3

(ii) *Period 12th January, 1929, to 29th June, 1929.*

Allahabad	6	—	—	2	—	—	1	—	—	—	—	—
Gaya	1	—	—	—	—	—	—	—	—	—	1	—
Hazaribagh.. ..	25	—	—	—	—	2	1	1	3	1	—	3
Manbhum	63	—	—	4	5	7	6	6	4	9	4	6
Monghyr	27	—	—	—	—	2	1	4	1	2	3	1
Pratapgarh.. ..	1	—	—	1	—	—	—	—	—	—	—	—
Santal Parganas ..	63	—	—	—	—	4	2	9	4	8	2	2
Unknown	31	—	—	—	—	—	1	1	—	5	2	4

(i) *Period 26th July, 1928, to 11th January, 1929.*

	16 weeks.	15 weeks.	14 weeks.	13 weeks.	12 weeks.	11 weeks.	10 weeks.	9 weeks.	8 weeks.	7 weeks.	6 weeks.	5 weeks or less.
Allahabad	1	—	2	1	—	—	—	1	—	—	—	—
Hazaribagh	1	—	—	—	—	—	—	1	3	4	—	—
Manbhum	4	4	12	—	1	1	1	3	3	2	—	—
Monghyr	—	1	—	—	—	—	1	—	1	3	1	5
Pratapgarh	—	—	—	—	—	—	—	—	—	—	—	—
Santal Parganas ..	—	1	2	3	2	1	4	3	7	1	1	2

STATEMENT A.—*continued.*(ii) *Period 12th January, 1929, to 29th June, 1929.*

	16 weeks.	15 weeks.	14 weeks.	13 weeks.	12 weeks.	11 weeks.	10 weeks.	9 weeks.	8 weeks.	7 weeks.	6 weeks.	5 weeks or less.
Allahabad	1	—	1	—	—	—	—	—	—	—	1	—
Gaya	—	—	—	—	—	—	—	—	—	—	—	—
Hazaribagh	2	2	4	—	—	—	—	—	3	1	1	1
Manbhum	3	1	—	—	—	1	2	—	—	—	1	4
Monghyr	2	2	—	1	1	—	—	—	—	2	2	3
Pratapgarh	—	—	—	—	—	—	—	—	—	—	—	—
Santal Parganas ..	2	—	2	—	2	—	1	1	—	2	3	19
Unknown	3	—	—	2	2	2	3	1	—	1	1	3

N.B.—The statement furnished by the colliery omitted the birthplace of certain miners, which have, therefore, been classified as unknown.

STATEMENT B.

Certain averages obtained from the statement.

Period 26th July, 1928, to 11th January, 1929.

	Allahabad workers.	Hazaribagh workers.	Manbhum workers.	Monghyr workers.	Pratapgarh workers.	Santal Parganas workers.	All workers.
Average number of weeks worked per worker.	17·80	15·11	19·65	9·25	27·0	18·23	17·99
Average number of days worked per week in which work was done.	3·30	3·50	3·58	3·56	4·22	3·50	3·55
Average number of tubs raised per day's working.	2·32	2·81	2·86	2·77	6·75	2·83	2·84

Period 12th January, 1929, to 29th June, 1929.

	Allahabad workers.	Gaya workers.	Hazaribagh workers.	Manbhum workers.	Monghyr workers.	Pratapgarh workers.	Santal Parganas workers.	Unknown workers.	All workers.
Average number of weeks worked per worker.	18·00	18	15·16	18·80	14·92	25	12·86	13·80	15·46
Average number of days worked per week in which work was done.	4·23	4	4·16	3·83	3·80	4	4·04	3·90	3·94
Average number of tubs raised per day working.	3·35	2	2·75	2·84	2·55	8	2·92	2·66	2·84

It will be seen that in this colliery (which as noted above estimates its settled labour at 50 per cent.), the miner is by no means regular in his attendance, and works on the average for only about 33 weeks in the year. The most consistent worker was a Partabgarh man, who worked during all the 52 weeks, and it will be noted that this man raised a far higher number of tubs than the average. A reference was made to the colliery as to whether more than one man worked under the token number, and it was stated that only one man worked and that it was the same man in each half-year.

B. Mica Mines and Splitting Factories.—The whole labour force is locally recruited. The worker generally works spasmodically for periods of years, returning to agriculture when he feels so inclined. Labour is by no means regular in its attendance; in a shift of 21 workers in Khunjia mine it was found that in a period of 13 days taken at random the average number of days worked by a worker was 5.8 days. In the factories, attendance though still irregular is slightly more regular, as shown from the statement below.

		Worked.						
		Total workers.	6 days.	5 days.	4 days.	3 days.	2 days.	1 day.
17th-23rd ..	{ April	120	46	16	16	17	14	11
	{ July	119	81	16	11	5	4	2

The greater regularity in July is explained by the fact that money was then wanted to arrange for sowings.

The table below shows the difference in strength of the labour force in two mines on a day of normal working and on a day in which a considerable portion of the labour force was absent due to sowings.

			Un-				Un-	
	Date.	Skilled.	skilled.	Total.	Date.	Skilled.	skilled.	Total.
Lomchanchi mine.	28.5.1929	129	127	256	26.7.1929	60	30	94
Dudpani mine	11.4.1929	80	19	99	26.7.1929	58	19	77

C. Factories.—Generally in factories, labour will return to its villages when it feels inclined, but figures are generally not available.

The figures for employments and discharges in Tata's Iron and Steel Works in 1927 seem to show that workers even from distant districts will frequently return to their home districts for periods longer than that of the leave allowed to them. These figures also show that the percentage of discharges and employments is generally highest for those born in Singhbhum and the neighbouring districts.

3. Methods of Recruitment.

(i) Existing Methods.

Jharia Mining Field.—There is no method of recruitment of skilled labour, but when skilled labour is required, applicants obtain information from persons already employed and vacant posts can easily be filled.

As regards unskilled labour, recruitment is either by means of sardars or recruiters.

(a) The sardar visits villages and brings the labour with him and the labour brought by him forms his gang. He has to pay the labour *bakshish*, *khoraki* and travelling expenses, and for this purpose the sardar frequently receives advances either from the contractor or from the company. Thus at Bhowra colliery advances varying from Rs. 3 to Rs. 10 are paid to miners in addition to their travelling allowance and food, and such advances are seldom recovered and never if the gang maintains good attendance at work.

The sardar obtains remuneration for his services in various manners. Sometimes he is paid a commission and salary, but generally he is paid a certain amount on each tub of coal raised by miners working in his gang. Certain instances are given :—

(1) *Loyabad Colliery.*—The miner sardar is paid a fixed rate per month (which fixed rate is based on his own attendance at the mine as sardar and the number and attendance of miners controlled by him) *plus* a rate of 3 pies per tub raised.

(2) *Bhagatdih Colliery.*—The cooly sardar is paid 6 pies a tub raised.

(3) *Bhowra Colliery.*—The sardar is paid a commission and salary.

(4) *Pure Jharia Colliery.*—The sardar is paid a commission of 3 to 6 pies per ton and *bakshish*, etc., is given.

(5) *Balihari Colliery.*—The sardar is paid 3 to 6 pies per tub raised.

It is reported that in other Indian managed mines, in some cases the cooly sardar is paid a fixed pay, in others fixed pay *plus* commission, and in others commission only. All three methods exist.

(b) In some collieries, in addition to the sardari system, there is recruitment by means of a recruiter who visits villages. Thus at Bhagatdih recruiters are sent out into the villages and are paid at 9 pies per ton raised.

(c) In some cases the miner comes of his own accord. This is generally the case with miners coming from the United Provinces and further west. In the case of certain collieries, if the miner is unattached to a cooly sardar, he is paid the commission per tub which would ordinarily be paid to the cooly sardar. In the East Indian Coal Company's collieries, labour which is accustomed to work in the mine frequently comes in without recruiting, but such labour will realize all travelling expenses from the contractors before going to work.

(d) As regards the cost of recruitment, the following figures have been furnished by the Indian Mining Association relating to two large collieries situated one in Jharia and the other in Mohuda :—

	Total raisings of two collieries.	Total expenditure on recruiting.	Average expenditure per ton raised.
Year 1927	552,000	Rs. 21,280	7.82 pies
Half-year, 1st January to 30th June, 1928	291,000	15,140	10 "
Half-year, 1st July to 31st December, 1928	172,000	9,400	10.5 "
Half-year, 1st January to 30th June, 1929	263,000	12,740	9 "

In the case of Pure Jharia Colliery, the manager states that his recruiting expenses vary between 1 to 2 annas per ton in the present state of the market, but it will be more if the price of coal improves.

(e) No inducement will bring local miners during the cultivation season, and it may be said that the mines themselves are the best recruiting agents. Good houses, easy conditions underground, with plenty of tubs close to the working face, good ventilation and facilities to make good wages attract labour. Steep seams do not attract labour.

Mica Mines.—There is no definite method of recruitment as all labour is available locally. Occasionally, however, sardars are sent out as recruiters when necessary. These are generally paid fixed wages and nothing as commission for coolies brought in, though occasionally, if the recruiting has been successful, they are given something as *bakshish*.

Iron Mines.—Bengal Iron Mines report that as the mines are old established there is a continuous flow of labour coming of its own accord whenever agricultural work and other mines are slack. Work is carried on half departmentally and half on contract. Departmentally, no recruiting is done beyond sending mates to the surrounding *bazars* on *bazar* day to let the labour know that they are wanted. Contractors, however, send out recruiters to more distant districts to bring labour in.

Factories.—Generally, there is no organized recruitment. Skilled labour hears of possible employment and applies for employment. Unskilled labour is generally local or has established a connection with the factory and applies for employment. There is seldom an excess of labour applying for employment over demand. Recruitment such as it is, is either direct or through labour contractors. In the sugar factories the bulk of the unskilled labour is engaged through a labour contractor. In rice mills also the unskilled labour is largely engaged through contractors, but in oil mills direct recruitment is the general rule. Some reports have been received from factories.

Tata Iron and Steel Company maintain an Employment Bureau where skilled and unskilled workers are registered and employed. Applicants for work assemble in a yard and daily requirements are selected by the officer in charge. No outside recruiting is done in the literal sense of the word, but in the event of special qualifications being required and no applicants being available, the post is advertised in three or four leading daily newspapers.

Indian Cable Company.—When no skilled persons were available, recruitment was local from trainable people. As output increased, labour has been recruited from applicants for employment, who assemble at the factory gate when it becomes known that there is a likelihood of vacancies.

(ii) *Possible improvement.*

The existing methods work satisfactorily and there is no need for any improved methods.

(iii) *Desirability of establishing public employment agencies.*

The matter is dealt with in answer to question (7).

4. Extent and Effects of Disturbance of Family Life.

Jharia Coalfield.—From reports received it would seem that between 40 to 50 per cent. of persons coming from non-contiguous districts leave their families in their home districts, but as such persons frequently visit their families there is little or no disturbance of family life.

Mica Mines.—Generally the worker lives in his village home. In the case of *pardesi* labour, in some cases the worker brings his family with him and lives in the houses provided by the mines. In cases, however, in which he leaves his family behind at his village there is little disturbance of family life, as the worker goes back to his village whenever he wishes.

Factories.—Ordinarily, labour is local, and there is no disturbance of family life. In Jamshedpur there is some disturbance, partly as a result of shortage of housing referred to in Section III, and partly because labour coming from further off does not invariably bring its family.

6. Recruitment for Assam.

(i) It would not be safe at present to dispense with control for the following reasons :—

(a) The recruiting is of aboriginals who, in spite of the undoubted spread of education, are still extremely ignorant, and are amongst the most backward classes in India.

(b) Most of the abuses in connection with recruitment occur in connection with the recruitment of women and minors.

(c) Though it is possible to reach Assam by train in a few days, to the aboriginal, Assam is still immensely far away. The Deputy Commissioner of Ranchi writes :—

"I am not acquainted with conditions on the tea gardens and can only give my views on the matter as it appears to an officer in charge of a recruiting district. It is easy to consult the railway and steamer time-tables and to work out how long it takes to return from the garden to Ranchi. But that is not the way in which the problem presents itself to the dissatisfied cooly. He cannot read or write and probably has only a slight acquaintance with any language but his own. His first acquaintance with railway travelling is probably his journey to the garden. Above all, he has no money. It is somewhat cynical to point out the excellence of modern communications to a man whose only real resort is to walk home. That the difficulties of communication are formidable is evinced by the fact that in this district the fact that a man has gone to Assam or 'Bhutan' is often regarded as synonymous with his total disappearance."

(d) Similar recruitment for the Darjeeling and Duars gardens is subject to no restriction. It has been argued that for this reason restrictions are no longer necessary for Assam recruitment. In answer to this argument it must be stated (1) that the frequency with which the aid of the magistrates is sought to recover women and minors who have been taken to the Duars indicates that abuses occur on a fairly considerable scale under free recruitment, (2) in the last resort a cooly in a Duars garden can walk home. An Assam cooly cannot, owing to the greater distance and the difficulty of the country.

(e) The supply of labour for Assam is not equal to the demand and it is not possible to trust to the growth of public opinion to prevent, if control were withdrawn, a recrudescence of the abuses previously prevalent. Chota Nagpur coolies are in great demand on the Assam gardens. The co-existence in the recruiting districts of free recruitment, both for the gardens and other forms of labour, has resulted in the survival of labour contractors and similar agencies who would turn their attention to Assam recruitment if the present restrictions were relaxed.

(ii) (a) A statement is given below showing the total number of emigrants recruited for Assam from each of the districts of the province during the last three years for which figures are available :—

Districts.	Number of emigrants recruited in—		
	1925-26.	1926-27.	1927-28.
Monghyr	140	156	279
Santal Parganas	478	1,103	3,346
Cuttack	436	553	499
Puri including Feudatory States	670	335	201
Balasore	—	—	126
Sambalpur including Feudatory States	8,017	6,336	4,757
Angul including Feudatory States	808	779	520
Hazaribagh	101	117	247
Ranchi	2,029	5,312	7,932
Palamau	207	437	887
Manbhum	144	242	256
Singbhum including Feudatory States	551	904	1,085
Remaining district	—	—	—

Notes.—(i) Santal Parganas—The increase in recruitment in 1926-27 was due to an increase in the number of coolies recruited for short term six-monthly contracts. The increase in 1927-28 was due to a partial failure of winter rice crop.

(ii) Ranchi—The increase in 1926-27 was due to a partial failure of the lac harvest, and that of 1927-28 to the growing popularity of short-term recruitment.

(iii) Sambalpur—The decreases in both years are due partly to good harvests and partly to the increased local employment of labourers on the construction of a new railway ; while it is reported that in the Feudatory States, owing to the existence of a ready market for labour within the States (as a result of the large expansion of public works projects, and the development of lac and tassar industries), the raiyat is no longer as ready as previously to emigrate if his crop fails.

(b) A statement is given below showing the number of males, females and dependants recruited from the three main recruiting districts during each of the last three years :—

Year.	Male.	Female.	Dependants.	Total.
	(Angul (including Feudatory States).)			
1925-26	545	164	99	808
1926-27	587	118	74	779
1927-28	382	89	49	520
	Sambalpur (including Feudatory States).			
1925-26	4,074	1,982	1,961	8,017
1926-27	3,336	1,494	1,505	6,336
1927-28	2,579	1,144	1,034	4,757
	Ranchi.			
1925-26	1,154	472	403	2,029
1926-27	2,886	1,165	1,261	5,312
1927-28	3,883	1,870	2,179	7,932

(c) The number of garden sardars and sardarins engaged to recruit coolies during the last three years is given in one statement below :—

—	1925-26.	1926-27.	1927-28.
Santal Parganas	366	464	1,368
Ranchi	3,052	3,878	3,868
Manbhum	574	415	533
Singbhum	742	929	1,378
Hazaribagh	259	162	330
Palamau	428	378	552
Sambalpur	5,113	5,507	4,650

(d) The places of accommodation for emigrants are regularly inspected and are maintained generally in a good and sanitary condition.

(e) The number of criminal cases connected with emigration was :—

1925-26	..	10 cases	..	9 persons convicted.
1926-27	..	27 "	..	19 "
1927-28	..	28 "	..	26 "

Most of these convictions are either under section 174 of the Inland Emigration Act (infringement by a garden sardar of the conditions for recruitment laid down under section 91) or under section 164 (recruitment in contravention of the terms and procedure of the Act).

(f) There has been recently a considerable increase in short-term recruitment. This is very popular with the labourers, as they go to Assam for the non-cultivating season and return in time for the next cultivating season. It is, however, expensive for the gardens and is only workable on the assumption that a good many of the labourers decide to stay on, on the gardens and that a large number return as short timers every year, as such labour is trained and is at once useful on the garden.

(iii) The Assam Labour Board is composed of an official chairman and 16 members of the Tea industry.

The Labour Board generally supervises the work of local agents and garden sardars. It maintains three supervisors who spend a considerable number of days on tour.

(iv) (a) The Act read with the notifications thereunder provides for the recruitment of coolies through garden sardars. This system has the following defects :—

- (1) It does not produce sufficient recruits.
- (2) It is unsuited to the needs of a new garden.
- (3) It is unsuited to recruitment in a new recruiting district.

(b) The composition of the Assam Labour Board presents the following defects :—

(1) There is a lack of liaison between the Board and the local Government.

(2) In times of difficulty the one-sided composition of the Board might weaken its action.

(3) The Board as at present constituted is practically equivalent to the Tea Districts Labour Association. There are other local agencies, besides those maintained by the Tea Districts Labour Association. It is inadvisable that the Tea Districts Labour Association should (as a result of the constitution of the Assam Labour Board) have any opportunity for control over its trade rivals.

(v) 1. The local Government agree that the Sardari system is unable to supply the legitimate demands of industry in Assam for labour, and are, therefore, prepared to supplement that system by admitting recruitment through recruiters duly authorized by the employer subject to certain safeguards.

Those safeguards must lay down that local control over recruiting is reserved to the local officials of the recruiting district. The local Government consider the following to be the minimum safeguards necessary :—

(1) That all sardars and recruiters should be licensed by the district authorities of the labour district (i.e., Assam district) and that the issue of such licence should be notified to the district authorities of the recruiting district.

But that (a) the local Government should have power to authorize the District Magistrate of the recruiting district to endorse, suspend or cancel the licences, whether of sardars or of recruiters, and (b) in the case of recruiters who are natives of the recruiting district, licences must be countersigned by the District Magistrate of that district before issuing.

(2) That no person should be allowed to recruit or assist in recruiting without a licence.

(3) That all local agents of the employers or the recruiting organization should hold licences issued by and withdrawable by the District Magistrate of the district in which they operate.

(4) That all recruits should be registered at and sent through recognized forwarding depots.

(5) The District Magistrate of the recruiting district should retain the existing power to inspect depots and call for the production of documents or of recruits.

(6) Power should be given that in case of necessity all sardars and recruiters should be required to work under local agents.

2. The local Government have considered the draft Bill which was prepared by the Government of India and circulated with their letter No. L. 1266, dated the 3rd December, 1928, and have in their letter No. 1028 Com., dated the 16th February, 1929, reported on the provisions of that Bill. The main points which the local Government raised in connection with this Bill may be summarized below:—
 (a) The registration of all licensed recruiters and sardars in the office of the District Magistrate of the recruiting district should be made compulsory, and that in the case of recruiters, countersignature of the District Magistrate of the recruiting district should be necessary (though the local Government do not press particularly for this latter point). (b) That powers be given to the District Magistrates of the recruiting district to endorse, suspend and cancel all licences of sardars and recruiters. (c) That a clause be added to the effect that no person may recruit, engage or assist in recruitment unless he holds a licence. (d) That power be given to the local Government with the previous sanction of the Governor-General in Council to prescribe that recruiters shall work under the control of local agents. (e) The local Government apprehend that the definition of "Estate" given in the Bill might lead to evasion of the Act, as it would be possible for the planters to split up their lands and devote a small portion, which could be treated as a separate estate, to the cultivation of some other crop, e.g., sugar for which they could recruit labour. It would be difficult in practice to deal with this abuse.

3. Assam Labour Board.

In the same Bill, the Government of India proposed a reorganization of the Assam Labour Board. The local Government do not approve of the proposed formation, as it would appear that the Board would lose the strong disciplinary power over the industry which has, in the main, been effectively exercised and at the same time would not gain any effective representation of the local Government or liaison with them. The local Government consider that it is necessary that on the Board a preponderating majority of the representatives of the industry should be retained in order that the authority of the Board over the industry may not be impaired, but the local Government consider that the remaining representatives should be rather representatives of the local Government than of labour. The constitution, therefore, of the Board which appears to the local Government to be most suitable is an official chairman, a majority of members to represent the tea industry (say, eight members) and a minority composed of representatives of the local Governments. If, however, it is considered inadvisable to have the whole minority composed of representatives of the local Governments there might be two representatives of local Governments and two representatives of the interests of labour appointed by the Government of India. But it must be recognized in this latter case that the inclusion of the labour representatives will quite probably paralyse the united work of the Board.

7. Unemployment.

(i) 1. Industrial unemployment as it is understood in the west is unknown in Bihar, and will probably remain unknown until a purely industrial population of some magnitude has been created. At present, hardly any industrial worker is solely dependent on industry for his livelihood. The population is almost entirely agricultural. The bulk of the industrial workers are agriculturists or field labourers, and industry is a subsidiary rather than the permanent means of livelihood to them.

Illustrations of this from various industries are given below:—(a) At Jamshedpur, during the recent strikes in 1928, it was found that even in a big industrial centre and specialized industry the bulk of the strikers returned to the land while they were out of employment. (b) In the coalfields a large portion of the mining population, other than the skilled staff, is really agricultural and only works in the mines at periods at which work on agriculture is slack and in order to add the earnings obtainable in mining to those obtainable from agriculture. (c) *Sugar Factories*.—These factories are also dependent on agricultural labour, and factory managers call attention to the tendency of unskilled labour to return to agriculture in November for the harvesting of the rice crop, and in the latter part of March or in April for the harvesting of the *rabi* crop, though both these times are periods in which the factory is extremely busy over crushing.

2. There are, however, signs of a nucleus of a small body of unemployed coming into existence. Thus in Jamshedpur, persons who took their settlements from Tatas either before or after the 13th September, 1928, the date on which the recent strike ended, did not leave the place. A number of these have now found employment in the Tinsplate Works, but in a large measure these will simply be replaced by the tinsplate strikers. The numbers, however, are small and it is doubtful whether any

of these men are entirely dependent on industrial wages for a living. Similarly, in the coalfields a certain number of skilled staff, such as fitters, pump *khalasis* and clerks, are out of employment as a result of the depression in the industry and the closing down of certain mines and cannot find fresh employment. These persons also, however, have their agricultural earnings to fall back on and only seek industrial employment to supplement those agricultural earnings.

(iv) There is at present no necessity for any method of alleviating or remedying distress caused by unemployment or for the provision of unemployment insurance in this province.

(v) The International Conventions relating to unemployment are not applicable to conditions in this province.

As there is no unemployment there is no necessity for returns giving information, statistical or otherwise, concerning unemployment and the measures taken to combat it.

There is also no necessity for the establishment of free public employment agencies in the province, partly because there is no industrial unemployment and partly because there is no indication on the part of employers of a desire to make use of such official agency. The only unemployment that exists (and that only to a small extent) is that of middle class, partially educated persons suitable for employment as clerks, etc., and of skilled labour such as fitters, pump *khalasis*, etc., in an industrial concern, but the establishment of employment agencies would not be likely to assist such persons, as their unemployment is the result of an excess of supply over demand and is not caused by any ignorance as to where opportunities for work exist.

8. Labour Turnover.

(i) It is very difficult to obtain any accurate statistics of labour turnover as there are few concerns that keep such records.

Factories.—It may generally be stated that skilled labour is fairly regular in its work and has an average duration of employment of several years. Unskilled labour is less regular but it is apt to keep its connection with the factory and with periods of of intermittance has probably an average duration of employment of several years.

Messrs. Tata Iron and Steel Company report that the average duration of employment is one to four years and that their labour turnover during the last three years of normal working has been .—

1925	..	..	..	..	..	36.6 per cent.
1926	..	..	..	..	..	31.3 "
1927	..	..	..	..	..	24.1 "

In the case of recruitments that are taking place in this company at present it is estimated that 75 per cent. of the new applicants are men who have already served in the Steel Company. It is, however, reported that this percentage is probably higher than the normal as there are some men who took their settlement last year after the strike who are applying for fresh service, while also some of those, who went home during the strike and did not return to employment within the three weeks allowed and so were not taken on, are now applying again. It is also stated that men with families try to keep their connection with the works and if one member of the family leaves another tries to take his place.

The Indian Cable Company reports that throughout the five years during which the factory has been working skilled labour has remained largely unchanged, but the unskilled aboriginal class has changed to the extent of about 30 per cent. annually and continues to do so. Several of this class habitually come to the industry for a short period to collect a small capital or to tide over a difficult period in their usual agricultural employment.

The Tinsplate Company reports that the factory has been operating for 6½ years and that the average duration of appointment to date has been 2.6 years. The Company gives the following figures of service records of their employees (other than clerks and foremen) :—

Less than one year's service	..	..	..	42.9 per cent.
One to two year's service	..	..	..	15.4 "
Two to three years' service	..	..	..	10.6 "
Three to four years' service	..	..	..	8.0 "
Four to five years' service	..	..	..	14.0 "
Five to six years' service..	..	..	..	8.3 "
Six to seven years' service	..	..	..	0.6 "
Seven to eight years' service	..	..	..	0.2 "

Among clerks and men of the foremen type, the labour turnover is small and the duration of service considerably longer than the figures given above.

In the *Coal Mines* skilled labour is fairly regular in its employment and the average duration of employment amounts to several years. Unskilled labour is less regular, but there is a distinct labour force which tries to keep its connection with the mines and its average duration of employment may be said to be for several years with intermittent periods of work and absence.

Mica Mines.—The position is much the same as in the case of coal mines, but probably unskilled labour has a slightly longer duration of service and maintains with the same periods of intermittance a longer connection with the mines.

(ii) Messrs. Tata Iron and Steel Company report that the extent of their casual employment is .03 per cent. and they base the figure on the total number of temporary employments in 1927 and the average monthly staff on the roll for that year.

The Indian Cable Company reports that it has little casual employment, which amounts only to about 3 per cent. of its complement.

Peninsular Tobacco Company report that all their employment is permanent and there is no casual employment.

(iii) Absenteeism is extremely frequent both in factories and in mines.

Factories.—In the larger organized factories it is perhaps less frequent than in the smaller factories and in mines. There is, however, considerable seasonable absenteeism consequent on marriage and agricultural seasons. The figures given in (2) C indicate the extent to which this occurs in Messrs. Tata's Iron and Steel Company and it probably occurs to a similar or even greater extent in other factories. There is also absenteeism due to lack of effort of the worker, and Messrs. Tata's Iron and Steel Company find it advisable to offer a bonus of two days' pay extra to each man of their weekly rated labour who works 27 days out of a possible 28 and one day's pay extra to each man who works 26 days out of a possible 28. It was estimated that approximately 80 per cent. of the weekly rated labour get this bonus.

Coal Mines.—In the coal mines absenteeism is of two distinct sorts :—

(i) Seasonal absenteeism caused at the three periods of the year, i.e., March and April for marriages, June and July for sowings, November and December for harvest. The extent of this absenteeism can be estimated by the figures of production furnished by the Chief Inspector of Mines in his annual reports. The relation of these figures of production to miners working is shown from the figures below, which show the total of tons cut in each month and of miners, including loaders in the Loyabad and Standard collieries. It may be noted that these two collieries were the only ones which were asked to furnish this statement :—

	Month.				Tons of coal cut.	Miners including loaders.
	—				—	—
	1928.	Loyabad Colliery.				
January	42,508	33,690
February	49,001	41,736
March	46,907	37,702
April	39,729	33,792
May	46,934	40,756
June	35,817	29,290
July	23,458	19,334
August	39,100	39,865
September	40,123	40,213
October	36,425	35,058
November	28,694	24,272
December	28,268	25,169
Total	456,964	400,877

Standard Colliery.

Month.					Tons of coal cut.	Miners including loaders.
—					—	—
January ..	..	..	.	..	34,149	18,750
February ..	..	..	..	..	37,466	20,168
March ..	..	..	..	..	36,540	19,869
April ..	..	..	..	..	36,095	16,773
May ..	..	..	..	..	42,117	19,333
June ..	..	..	..	..	34,524	17,043
July ..	..	..	..	..	28,231	14,685
August ..	..	..	..	..	42,022	20,285
September ..	..	..	..	..	53,051	22,154
October ..	..	..	..	..	43,419	26,284
November ..	..	..	..	..	35,100	25,844
December ..	..	..	..	..	37,904	24,705
Total ..					460,618	245,893

(ii) Absenteeism caused by lack of effort of the miner and the unwillingness to work more than a small number of days in the week. Figures regarding this given for Loyabad in answer to question 2 and for a number of collieries in answer to question (64). From these figures it seems that the average number of days worked in a week by a miner is about 4.

Mica Mines.—Absenteeism is of the same nature as in the coal mines.

9. Apprentices Act, 1850.—The Act is not used in the province.

II.—STAFF ORGANIZATION.

(Note.—For convenience the answers to all questions in this section are given separately for the Jharia Mining Field and for all other Industrial concerns.)

A.—JHARIA MINING SETTLEMENT.

11. Selection of Managing Staff.

Mine managers are required to hold the following qualifications :—

For a mine with an output of more than 2,500 tons a first-class certificate,

For a mine with an output of less than 2,500 tons a second class certificate though managers holding only "permits" are allowed in collieries where the output does not exceed 600 tons a month.

In the larger coal mines managed by European firms, the managers are generally Europeans who have originally been recruited from home. These Europeans are usually appointed as assistants and after they have had time to learn the conditions and the language are put on to manage a mine. Most of these persons hold first-class coal mine manager's certificates from home, but a number of European managers have been trained in India and hold Indian coal mine manager's certificates. These European managers frequently change from one company to another.

With regard to Indian managed collieries, the Indian managers have usually had their training in India and have passed their examinations in this country. A few, however, have obtained their certificates in Great Britain.

The Indian Mine Managers' Association points out that the number of mine managers is in excess of the demand for them, and that the number of persons to whom certificates have been issued by the Mines Department since 1906 up to date in 1929 is as follows :—

First Class.

				Indian (speaking Indian language).	Rest (speaking any language other than Indian).	Total.
In lieu of Home Certificates	..			2	344	346
Service	..	..	..	43	115	158
Competency	..	..	..	83	121	204
				—	—	—
Total	..	..	..	128	580	708
				—	—	—

Second Class.

In lieu of Home Certificates	..			Nil	27	27
Service	..	..	..	135	70	205
Competency	..	..	..	328	119	447
				—	—	—
Total	..	..	..	463	216	679
				—	—	—
Grand Total	..	..	..	—	—	1,387
				—	—	—

The number of mines worked at the end of 1923 was 942 ; at the end of 1927, 644, and at the end of 1928, 554 ; and even allowing for casualties among the passed mine managers, for those who have taken up other posts and for the fact that some of those obtaining first-class certificates are those who had previously obtained second-class certificates, the Association considers that there is considerable unemployment among Indian mine managers. It also considers that the conditions of service of mine managers, owing to the depressed condition of the trade, have become unsatisfactory, and that in some cases mine managers have to work under unsatisfactory conditions.

12. Recruitment and Training of Subordinate Supervising Staff.

(i) In the case of the better educated classes, a person usually joins a colliery as an apprentice. After he has had practical training for three years and attained the age of 21, he may sit at the examination for a sardar's certificate, and, if successful, may be appointed as a sardar or over-man. In the case of a person holding an approved degree or diploma the period for practical training is reduced to one year. He may also sit for the second-class mine manager's certificate after three years and for the first-class certificate after five years. In the case of those holding an approved degree this period is reduced to two and three years respectively. A person holding one of these certificates enhances his prospects of being appointed as an assistant manager and possibly eventually as manager.

In the case of the uneducated classes, a coolly sardar may sometimes pass the examination (which is an oral one and on practical lines) for a sardar's certificate. In some mines, persons desirous of doing this are giving an opportunity of working as assistant sardars (though their wages are not shown in the books as such), and before a sardar's certificate can be granted the aspirant must have three years' practical experience of working in a mine.. When a certificate has been obtained, such a person may be appointed as an over-man.

(ii) (a) No facilities are given for training workmen to obtain the position of over-man but the training required is largely practical and obtained by aspirants in the course of their ordinary duties in the mine. Classes, however, financed by the local Government and run by the Mining Education Advisory Board, are held at Jharia and Sijua in the evening so as to allow assistants, over-men and apprentices to attend them. The classes comprise a three-year course and by attending the classes a student is able to pass his examination for the first and second-class certificates while in the third-year class ; instruction in surveying also is given.

(b) The following reports have been received from mines showing the number of certificated sardars at present working who started work either as cooly sardars or workmen. In some cases those who were originally workmen became first cooly sardars and thereafter certificated sardars.

						Number of certificated sardars who started work in the mines as—	
						Cooly sardars.	Workmen.
Bhuggutdih	..	..	..	..	..	12	Nil
Bhowra	..	..	..	..	..	0	3
Central Kirkend	..	..	..	..	..	0	4
Guslitan	..	..	..	..	..	2	8
Lodna	..	..	..	..	..	8	4
Standard	..	..	..	..	..	7	6
East Indian Coal Company (for all collieries)						9	35

(c) There are no arrangements for the theoretical training of such skilled labour as winding engine men, haulage engine men, pump men, boiler fire men, fitters, etc., who are mostly illiterate.

13. Relations between Staff and Rank and File.

(i) Relations generally in the coalfields are, on the whole, good. This is shown by the absence of strikes. In many mines, managers make a point of knowing their labour and it is not uncommon for a manager to know all his labour by name.

(iii) *Works committees : Their extent and achievements.*—These are unknown in the coalfields.

15. Contractors as Intermediaries.

(i) (a) Contractors are employed by a large number of collieries to provide the labour required for cutting the coal and loading the coal on wagons, and are paid at a fixed rate per ton for all coal loaded on wagons. In some cases, however, the rate paid per ton is increased either because coal is being extracted from difficult places in the mine or because the contractor has difficulties in maintaining his labour supply. The extent to which contractors are employed for this purpose is considerable and probably more than half the coal raised in the Jharia coalfields is raised on the contract system. Definite figures are not yet available, but the Indian Mining Association reports that 70 per cent. of the coal raised in mines belonging to that Association in the Jharia coalfield is raised by the contractor system.

(b) Contractors are also employed simply to provide the labour requisite for cutting the coal.

(c) In some cases also contractors are employed for petty contracts for cutting the coal from particular places.

(iii) (a) The contractor is generally responsible solely for raising the coal while the colliery supervising staff is responsible for seeing that the mines are run safely. In some cases where the supervising staff has been paid by the contractor the Department of Mines has objected to the practice as there is then a tendency that the supervising staff would pay more attention to raising than to safety.

(b) Housing and medical facilities are invariably provided by the management, though in some cases the contractor is required to pay sickness payments to the labourer employed by him, e.g., in Standard Colliery.

(c) A contractor is generally at liberty to pay a labourer as he considers fit, but is more or less bound by the law of supply and demand to pay the rates which are general throughout the colliery area as otherwise his labour would probably leave him. In some cases, as at Standard Colliery, the contractor is not authorized to alter rates of pay without consulting the manager, but in other cases this custom does not exist though generally managers report that no complaint had been received by them regarding the rate of wages paid to labourers by contractors.

(iv) *Effects.*—When proper control is exercised by the management there should be no ill-effects either on labour or on the working of the mine. If, however, the contractor is not properly supervised the system may have a bad effect more particularly on the working of the mine, in that the contractor may endeavour to win coal from the easiest places so as to get a good output.

B.—FACTORIES AND MINES (OTHER THAN THOSE IN THE JHARIA COALFIELDS).

11. Selection of Managing Staff.

(a) In the larger industrial concerns the Managing Agents or Board of Directors generally appoint the higher staff either by direct recruitment from abroad, sometimes under a covenanted system, or by promotion from the junior ranks or by direct recruitment from large industrial cities in this country. In the Indian-owned concerns which are generally small establishments, the occupier or one of the occupier's agents often manages the concern with a clerk or clerks to keep registers and accounts, but in a few concerns such as some of the Indian-owned sugar works in Bihar, there are regular managers with previous business training in some industrial firm either in this province or elsewhere. The majority of such managing staff, however, belongs to this province.

(b) Messrs. Tata Iron and Steel Company report that their managing staff consists principally of men with a wide and varied experience acquired in the foremost iron and steel works in America or Europe. The heads of departments are usually men with experience in similar departments of other steel works, recruited in America or Europe, but there are a number of Indians, some of whom have had training in foreign steel plants, while others have obtained practically all their experience with the company at Jamshedpur. As vacancies occur in the positions of heads of departments promotions are made from other employees engaged in the department (if a suitable man is available) otherwise it is necessary to recruit from abroad.

(c) Messrs. Indian Cable Company report that their managing staff is recruited from especially trained men in the English factories belonging to their Managing Agents.

(d) The Tin Plate Company report that their managing staff is recruited from abroad.

12. Recruitment and Training of Subordinate Supervising Staff.

(i) (a) The subordinate supervising staff in some of the larger industrial concerns where the work as well as the skill required is of diverse nature is recruited from all classes. Some are members of this province, some Anglo-Indians, some Europeans, and some members of other provinces. In the railway works, Anglo-Indians form a fair percentage. In other concerns where the work is not so varied or in smaller concerns, local men are generally trained up to hold these positions, but here also there is a sprinkling of persons belonging to other provinces.

(b) Messrs. Tata Iron and Steel Company report that the Company maintains the Jamshedpur Technical Institute to train in theory and practice certain selected students for positions in the operating departments of the works. The course is a three-years' one—half of which is spent in the works and half in the institute, and during training each student is paid Rs. 60 per month. Since the institute was started in 1921, 137 students have entered the institute of whom 50 are now under training and of the remainder 63 are in the works. Many of these students have replaced imported covenanted labour and quite a number are successfully filling foreman's positions in various parts of the works, though none are yet fit for the higher positions of Departmental Superintendents.

Foremen in the Electrical and Mechanical Departments are also often recruited from persons who have graduated from the various mechanical and electrical training colleges in India.

The Company gives the following figures to show the extent to which the number of covenanted imported employees in the manufacturing departments has been reduced since 1925-26.

	Number of covenanted employees in 1925-26.	Average monthly output in 1925-26 in tons.	Present number of covenanted employees.	Present average monthly output in tons.
Coke ovens	Nil	57,840	Nil	63,000
Blast furnaces	13	50,200	10	65,000
Steel plants	49	39,210	42	50,000
Rolling mills (finished product)	108	27,000	40	35,000

(c) Messrs. Indian Cable Company report that when their factory opened the subordinate supervising staff was recruited from senior students of reputable engineering colleges. The method was found satisfactory as although the men were not particularly skilled at their duties, they had sound education and were found able to receive practical training and also to control labour. Future subordinate supervising staff will, however, to a great extent, be drawn from their present labour.

(d) In the Mica Industry, sardars are generally persons who have had their training as ordinary workers, while mining assistants are generally recruited from Bengali.

(ii) (a) In some of the industrial concerns, as for instance, in the engineering firms, there is an apprenticeship system and the apprentices on completion of their term are kept on but the percentage of students completing their term is very small. Details of such apprenticeship systems other than those existing in the Jamalpur East Indian Railway Works are given below :—

(1) *Arthur Butler and Company, Muzaffarpur*, takes in apprentices for motor works and structural works. Period, 3 years. Usual number of apprentices about 20. Approximately 20 per cent. remain with firm on completion of the term.

(2) *Saron Engineering Company, Marhoulrah*, takes in apprentices as moulders, turners and fitters. Period, 5 years. About 1 per cent. remain with firm on completion of the term. Usual number of apprentices about 10.

(3) *Tata Iron and Steel Company* takes in apprentices in the brick department, roll-turning department, electrical department, machine shop and foundry. Period, 5 years. Usual number of apprentices in these departments about 100. Attendance of all apprentices at the Technical High School is compulsory.

(4) *Patna Iron Foundry, Patna City*, takes in apprentices in the machine shop moulding and fitting work. Period 2 to 3 years. About 5 per cent. remain with firm on completion. Usual number of apprentices varies from 3 to 5.

13. Relations between Staff and Rank and File.

(i) (a) Generally the relations between the staff and rank and file particularly in the smaller factories are satisfactory. In some of the larger concerns, however, there is sometimes a lack of contact between the managing and supervising staff, who are frequently ignorant of the language of their workmen, and there is also a tendency on the part of foremen to abuse their authority.

(b) In Tata Iron and Steel Works the lack of contact between the supervising staff and the workmen and the abuse of workmen by foremen has been stated as one of the reasons leading to the 1928 strike. The company itself reports that "the present relations between the staff and workmen are generally speaking of a cordial nature. In the earlier days of the company it was not uncommon for foremen to abuse their authority and powers by demanding from the workmen sums of money in return for which men were given preferential treatment and employment, promotion, etc. In recent years this has largely disappeared and charges against the foremen of this nature are now seldom preferred. Nevertheless confidence in the integrity of the foremen by the workmen has not yet been completely restored. The difficulty of establishing such confidence is greater here because of the labour belonging to various communities, and the almost impossible task of trying to please each. Efforts have been and are being made to educate all our foremen up to the responsibilities of their positions and the necessity of dealing with workmen in a straightforward, honest and sympathetic manner. This instruction is given by the Departmental Superintendents to all foremen under them in a series of lectures."

(iii) *Works Committees*.—(a) As regards Tata Iron and Steel Company *vide* the Company's Memorandum.

(c) The Indian Cable Company report that a Works Committee was started in January, 1929, and has met monthly since that date, and it is the unanimous opinion that the management and the workpeople have derived considerable gain from this system. The Committee consists of ten workpeople elected by vote from ten sections and two representatives of the management. The first two meetings produced nothing beyond reiteration of wants, but it can now be considered that

the Committee is permanently established as an excellent bridge between labour and control and that the individual workman takes considerable interest in the work of the Committee.

(d) In the Tin Plate Company there are two main Works Committees. Of these one deals with safety regulations and is composed of two superintendents, doctor, sanitary officer, and a number of Indian foremen and supervisors. This Committee holds meetings periodically to discuss safety first propaganda and makes enquiries into accidents. The other is a committee composed of Indian and European employees which considers the works organisation and makes suggestions for improving efficiency.

15. Contractors as Intermediaries.

(i) (a) Generally the construction of factory buildings and other such work is given on contract. But in other matters the extent and character of work given on contract varies considerably between the various concerns.

(b) As regards Tata Iron and Steel Company *vide* their Memorandum.

(c) Tatanagar Foundry report that most of the work of the company is given on piece-work contract system, and that the relations between the staff and rank and file are consequently very cordial. They find that labourers on contract can finish the day's work in much less time and do it with care and interest, and that after a reasonable contract has been made, there is neither detailed demand from one side nor complaint from the other.

(iv) (a) Messrs. Tata Iron and Steel Company report that it has been found more profitable and expeditious to employ contractors for the classes of work done than if the company employed its own staff. This is because the work given on contract is principally work which can be done on a piece-work basis. The contractors have quarters that accommodate approximately 600 labourers, who form the nucleus of their staff. The workmen, therefore, are readily available for work of urgent nature on account of their proximity to the works. As most of the work for which they are employed can be completed within 5 or 6 hours this labour is not employed for a longer period than that prescribed, and the Chief Inspector of Factories reports that the contractors' labour does not seriously violate the rules regarding hours of work.

III.—HOUSING.

[The answers to all questions in this section are grouped together for the Jharia Mining Settlement and for the remaining industrial concerns.]

A.—JHARIA MINING SETTLEMENT.

16. Extent to which Housing is Provided.

(i) (a) All collieries in the Jharia coalfield (as distinct from the Mugma or Lower field) are amply and efficiently equipped with approved types of houses. Their design, construction, ventilation, and general amenities are governed by the Jharia Mines Board of Health By-laws.

(b) Those workers who are recruited from villages situated within five miles from the mine frequently prefer to live in their own villages and walk backwards and forwards to their work.

(c) A statement is given below showing the extent of housing provided on 15 collieries, of which 5 have been selected by the Additional Deputy Commissioner, Dhanbad, as being the best-equipped, 5 the worst equipped, and 5 normally equipped in the matter of housing.

A comparison of housing figures with the average labour population in the collieries selected does not give an absolutely accurate picture of the extent of housing provided for the following reasons :—

(1) In many cases more than one miner is accommodated in one *dhaura* or house.

(2) Very frequently a man and his wife and his family, all of whom may be regarded as separate labourers in the figures of the mining population, occupy one house, and

(3) The extent to which the workers go back to their own houses in their own villages is not definitely known.

Colliery.	Average number of workers.	Number of houses of each class provided.						Total.
		White licence.	Con-cession White licence.	Special licence.	Blue licence.		Red licence.	
					Standard.	Others.		
I.—Five best equipped collieries.								
Bhowra ..	2,082	733	—	—	6	320	—	1,059
Jamadoba..	2,052	755	48	—	19	360	42	1,224
Pure Jharia	409	168	53	5	30	—	—	256
Kustore ..	2,187	267	412	97	121	395	—	1,292
Loyabad ..	3,383	277	149	36	10	368	110	950
II.—Five worst equipped collieries.								
New Barwa-bera.	55	—	—	—	—	10	—	10
Sonardih (No. 106).	190	—	—	—	—	17	—	17
Angarpathra (No. 137).	107	—	—	—	88	1	—	89
Kantapahari	106	—	—	—	—	20	—	20
Kesolpur (128)	61	—	—	—	20	—	—	20
III.—Five normally equipped collieries.								
Gopalichuk—West.	1,185	118	55	—	21	132	—	326
Ena ..	605	158	—	30	18	47	—	253
Bhutgoria..	558	77	21	13	89	2	—	202
Kirkend (No. 196).	736	143	—	31	—	49	—	223
Central Ku-jama.	—	44	22	28	11	53	—	158

Note.—A white licence is given to those houses which conform in every way to the standards laid down by the Board, *vide* 18 (ii) below :—

A concession white licence is granted to houses which differ from the standard specifications in one or two minor details, e.g., floor space 100 square feet cubic capacity 900 cubic feet; floor space 90 square feet, cubic capacity 1,000 cubic feet, width only 7½ ft., but full floor space and cubic capacity, etc.

A special licence is granted to houses with tiled roofs, but insufficient slope—the defect to be remedied on renewal of roof.

A blue licence—considerable improvements required, but carrying out of improvements deferred.

A red licence requires renewal within 12 months.

(iv) In the Mugma or "Lower" field the housing by-laws mentioned in question 16 (i) above have not yet been applied. In the majority of the collieries there is no resident labour, the workers coming in from their own villages. In the few large collieries in this area, accommodation is provided by the management or land is given to the workers to build their own houses. Elsewhere in the Jharia minefields, except in the instances mentioned in question 16 (i), the workers do not provide their own houses.

17. Facilities for Acquisition of Land for Workers' Houses.

Difficulty has been encountered by collieries in the Jharia coalfield in acquiring land for the purpose of housing schemes. In 1920 the Coalfields' Committee suggested that every facility should be offered to a colliery company or proprietor to acquire land under the Land Acquisition Act for the housing of labour (paragraph 52 of the Coalfields' Committee report). In considering the amendment of the Land Acquisition Act in 1922, the Local Government in paragraph 5 of letter No. 132-R.T. of 13th August, 1922, suggested some such amendment to give some facilities for the acquisition of land for colliery purposes. The Government of India, however, did not include any such amendment in the Land Acquisition Act. The matter has again been before the Local Government in connection with the revision of

Sections 49 and 50 of the Chota Nagpur Tenancy Act and a Bill was introduced and passed in the last winter session of the Legislative Council. Slight alterations were found necessary in the Bill to improve its working, and these changes have recently been passed by the Legislative Council.

The Bill will in the first place facilitate the transfer by the occupant of a holding of raiyati lands to a colliery requiring land, and in the second place allow the lessor of mineral rights to acquire for his lessee (the mineowner) such land, which he is required by the terms of his lease to provide for the development of the mine. The Bill will therefore give facilities to collieries to acquire through their landlords such land as may be necessary for housing their labour.

18. Nature of Accommodation Provided in each Class.

Summary of standards.

- | | |
|----------------------------------|---|
| (a) Floor space 100 sq. ft. | (e) Verandah floor space 40 sq. ft. |
| (b) Cubic capacity 1,000 cu. ft. | (f) Verandah width 5 ft. |
| (c) Width of rooms 8 ft. | (g) Doors 5 ft. × 2 ft. |
| (d) Average height 7 ft. | (h) Adequate and independent ventilation. |

Every house must be licensed. Licences are not given unless the standards are complied with. If labourers are found in occupation of unlicensed premises, the management is liable to prosecution.

The type of house most commonly found is that known as the "arched *dhaura*" built of cement concrete throughout, though many other types are favoured, including some two-storeyed buildings.

The provision of satisfactory housing is controlled by the Jharia Mines Board of Health, and in 1919 it was decided that the elimination of non-standard housing should be extended over a period of three years. Early in 1923, however, it became clear that the three-year programme was drastic having regard to the financial condition of the trade, and it was, therefore, decided to substitute a five-year programme commencing with the year 1923-24 and ending in the year 1927-28. This programme was accepted as a provisional basis by the Indian Mining Association and Indian Mining Federation. Subsequently, however, owing to the depression in the coal industry, moratoriums have been allowed in subsequent years and full compliance with the programme laid down has not been insisted upon, though the Board insists that new constructions must comply with the standard specifications and that houses which fall into disrepair and become unfit for human occupation are thoroughly repaired. The housing provided may, nevertheless, be described as eminently satisfactory on the whole.

20. Rent Rates in Various Classes.

No rent is ever charged.

21. Special Problems Arising in Connection with Various Classes of Housing.

(a) Sub-letting is not known.

(b) Occupation of employers' houses by tenants in other employ is sometimes permitted by special sanction of the Board. Workers on one colliery may be housed in the buildings of a neighbouring colliery or a shopkeeper may be allowed to use a *dhaura* for the purpose of trade. It also frequently happens that two friends, one of whom may be working on one colliery and one on another, share a *dhaura* on one or the other of the collieries.

(c) *Eviction*.—Generally the miner leaving work in the collieries leaves the *dhaura*. At the same time on some occasions a miner going to work on another colliery keeps his house on his original colliery and there may be difficulties in connection with his eviction, but such cases are rare.

(d) In some cases if a colliery manager wishes to concentrate the labour working in one pit in houses close to that pit he finds difficulty in doing so, but the matter is not of great importance.

B.—INDUSTRIAL ESTABLISHMENTS OTHER THAN THE JHARIA MINING SETTLEMENT.

16. Extent to which Housing is Provided.

(i) *By employers*.—It may generally be stated that where labour has convenient access to its own house, whether in villages or towns, housing is not provided, but

that where there is no such convenient access or where it is considered by the management advisable to keep the labour close to its workplace housing is provided. Some instances are given :—

Messrs. Tata and Iron Steel Company.—There are 4,821 residential buildings provided. Of these 301 are rented at over Rs. 20 a month and may be considered as probably provided for the supervising and subordinate supervising staff and the description of them need not be given. Sixteen are rated as hotels. For further particulars see Company's Memorandum.

The Tin Plate Company provide 49 European style bungalows and 326 pucca quarters. These quarters housed at the last census 425 tenants and 1,411 lodgers, equivalent to 41·5 per cent. of the labour force. Prior to the strike of the 6th April, 1929, 20 lakhs of bricks had been burnt in readiness to build 80 additional quarters sanctioned by the Company for erection during 1929–30.

Kuchwar Lime and Stone Company provide 350 rooms, some of which are built with puttra (limy shales) and mud and some with puttra and lime. Roofs are constructed from rollas, bamboos and tiles.

Sone Valley Portland Cement Company.—425 pucca brick buildings are provided and more are being built.

Kalyanpur Lime Works, Limited, have built 314 rooms with country tiled roof—one room and verandah for two persons.

Shree Das Rice Mills, Patna.—Housing provided for 40 coolies and ten mistries.

Shree Bihariji Mills, Patna.—One room for coolies, one room and verandah for press attendants, and rented houses for miller, engineer, and some other persons.

Peninsular Tobacco Company.—Some time back made arrangements for quarters for their labour, but the scheme did not meet with success and has been stopped. Their employees, who are all local, make their own arrangements.

Barachakia Sugar Mills.—Forty-four quarters are provided for outsider workmen and skilled labour and the remaining workmen are residents of surrounding villages who go away to their homes after working hours.

Parsa Sugar Factory.—Housing is provided for all outsiders and local men go to their homes when off duty.

Japaha Sugar Company.—Housing is provided for all outsiders and local men go to their homes when off duty.

Sewan Desi Sugar Factory and Samastipur Central Sugar Company.—Housing for 10 per cent. of their labour is provided.

The New Sawan Sugar Company report that housing is provided for all employees, but this does not include the local labour.

Marhowrah Sugar Factory provide bungalows for all Europeans and Anglo-Indians, quarters for all Indian staff, mistries and watch and ward.

Saran Engineering Company provide housing for all imported labour.

Himgir Rampur Coal Company provide housing for 50 per cent. of the total labour force.

Bengal Iron Company.—All labour is provided with quarters.

Messrs. Indian Cable Company provide accommodation for skilled labour only. The aboriginal class of unskilled labour prefer to live in their own *bustis* in the adjacent villages. 73·9 per cent. of the skilled labour are accommodated in rent-free quarters and the rest of the skilled labour and of the unskilled staff provide their own accommodation.

Tatanagar Foundry report that free quarters are given to assistants and workmen, but that they have not been able to provide quarters for all men employed. Employees, however, are not taken unless they have made arrangements for their lodging and boarding in the locality, and the company is trying to hasten its own programme for housing workers.

Rayam Sugar Company.—Quarters are provided for those workers who are not resident locally.

Rameshwar Mills, Muktapur.—Housing is provided for all workers who desire accommodation.

Pasupatinath Rice and Oil Mills and Sikta Rice Mill provide housing for labourers who come from distant places, and for those required to live near the factory.

Mica Mines and Splitting Factories.—All local labour resides in its villages, and housing is provided for *pardesi* labour. Lokai factory provides housing for 20 coolies, who come from other districts. The Chota Nagpur Mining Syndicate provides housing for its *pardesi* labour in the Dhanakola division. At the Lomchanchi mine a large number of quarters have been provided by the same company but these remain unoccupied except by darwans, etc.

(ii) (a) No housing is provided by Government or any other public agency except for various persons working in Government factories.

(b) The Maude Committee, which inquired into the conditions of Jamshedpur in 1919, suggested that the Board of Works should construct houses for workers in that town and should charge rent which should be paid direct by the companies and the workmen should pay the rates and taxes. It was expected that the average cost of housing would not be less than Rs. 3 or Rs. 4 a month. This proposal, however, was not approved by Government as it was considered that the housing scheme as put forward by the committee was far from being a sound proposition.

(iv) *Messrs. Tata Iron and Steel Company* report that in view of the prevailing shortage of houses and with a view to encourage employees to build their own houses, the Steel Company grants leases at 3 per cent. interest to its employees for building houses. For kutchha houses three months' pay are advanced repayable in 12 instalments. For pukka brick-in-lime houses loans are granted on mortgage system; ordinarily 15 months' salary limited to half the cost of building is advanced to employees recoverable within a maximum period of five years, though occasionally the maximum is increased to two-thirds of the value of houses. For further particulars see Company's memorandum.

The Tin Plate Company state that many workers build their own houses. 724 houses have been built with loans granted by the Company amounting to Rs. 22,907. Loans are limited to a sum that can be repaid in 10 months without undue hardship and the Company exercise care to see that the houses are of good design and that good material is put in them.

19. Utilization by Workers of Accommodation Available.

In all cases quarters provided are invariably occupied, except in the case of the mica mines.

20. Rent Rates in Various Classes.

In some cases rent is charged and instances are given below.

Shree Bihari Mills, Patna City.—Rents charged at rates not given.

Messrs Tata Iron and Steel Company.—Rents are calculated as near as possible at 5 per cent. on the capital cost. The rents of various types carrying rent less than Rs. 20 are given in the statement attached in answer to question (14) (i).

The Indian Cable Company—No rent is charged beyond two annas per month paid by each occupant of the A and M4 types of quarters which have extra water mains provided by the company.

Tin Plate Company—Rents are fixed on a basis of 5 per cent. (and in some cases as little as 3½ per cent.) of the capital cost.

In other cases no rent is charged.

IV. HEALTH.

[In this section also answers to all questions except questions 30, 31 are grouped together for the Jharia Mining Settlement and for the remaining Industrial concerns.]

A.—JHARIA MINING SETTLEMENT.

23. General Health Conditions of Workers.

(i) *Figures of mortality.*—The figures available are not accurate figures for workers, but represent the figures for the whole mining settlement which is co-incident with Dhanbad Subdivision, excluding the figures for the Dhanbad Municipality.

(a) A table is given below showing the deaths in the mining settlement for the last five years.

Year.	Number of deaths.			Death-rate per 1,000.
	Male.	Female.	Total.	
1924-25	5,143	4,312	9,455	20.83
1925-26	4,541	3,900	8,521	18.77
1926-27	4,117	3,611	7,728	17.02
1927-28	3,979	3,616	7,595	16.73
1928-29	4,447	3,853	8,300	18.28

(b) A statement is also given of the incidence of cholera and small-pox in the mining settlement during the same period.

—	Year.	Cholera.		Small-pox.	
		Cases.	Deaths.	Cases.	Deaths.
Colliery population ..	1924-25 ..	671	342	379	11
	1925-26 ..	273	104	382	20
	1926-27 ..	131	37	461	27
	1927-28 ..	63	12	748	29
	1928-29 ..	132	36	744	24
Non-colliery population ..	1924-25 ..	760	218	173	97
	1925-26 ..	672	257	316	32
	1926-27 ..	546	121	672	38
	1927-28 ..	322	70	731	28
	1928-29 ..	531	164	782	32

(ii) *Birth-rate and infant mortality.*—The figures for the whole mining settlement for the last five years are given below :—

Year.	Number of births.			Birth-rate per 1,000.
	Male.	Female.	Total.	
1924-25	7,028	6,715	13,743	30.27
1925-26	7,753	7,519	15,272	33.64
1926-27	8,257	7,769	16,026	35.30
1927-28	7,937	7,878	15,315	33.74
1928-29	8,219	7,885	16,104	35.47

The mining settlement includes, however, two thanas, Tundi and Gobindpur, in which no mines are situated and also thana Nirsa of which the greater portion is rural. The birth-rate figures of these three thanas for the last three years are given below :—

Birth-rate per 1,000.

—	1926-27.	1927-28.	1928-29.
Thana Tundi	50.74	54.19	51.10
„ Gobindpur	48.23	42.35	49.28
„ Nirsa	41.90	37.18	38.26

Figures for infantile mortality in the mining area and the three thanas, Tundi, Gobindpur and Nirsa for the last three years are given in the statement below :—

Infant mortality per 1,000 births.

—	1926-27.	1927-28.	1928-29.
Mining area	199	165	171
Thana Tundi	124	93	112
„ Gobindpur	132	137	120
„ Nirsa	105	96	111

Methods of Registration.—The Jharia Mining Settlement is divided into eleven circles. Each circle is under the charge of a Sanitary Inspector, who has under him from two to four vaccinators, the number varying with the size of the circle.

2. *Sanitary Inspectors* are Registrars of Births and Deaths under the Registration of Births and Deaths Act (Bengal Act IV of 1873). It is their duty to record all births and deaths reported to them in the Births and Deaths Registers. The sources from which the registrars get their information are the following :—(a) *Thanas.*—All births and deaths reported by the Government Chaukidars at the thana and recorded in the thana registers, are copied by the Registrars into the Births and Deaths Registers. (b) *Vaccinators.*—The births registered as per paragraph (1) above are then entered in a special form (Vaccinator's Daily Record) one of which is kept for each village in the circle.

Each vaccinator is in sub-charge of a definite area ; a programme is drawn up which ensures a visit to each village every four or five weeks.

3. *Sanitary Inspectors.*—During the vaccination season, when the Sanitary Inspector visits a village about a week after the vaccination operations have been performed by the Vaccinator, he takes with him these records and, while noting the results of vaccination, verifies the entries made previously by the Vaccinator.

4. *Collieries.*—The following is the procedure as regards Collieries :—Births and deaths occurring on collieries are reported in the weekly returns of sickness and mortality which each colliery is required to submit to the Board's office, where the information is separated and forwarded to the Sanitary Inspectors concerned who, as Registrars of Births and Deaths, record the particulars, after verification, in their respective Births and Deaths Registers.

(iii) *Working conditions.*—The conditions underground in the mines are on the whole satisfactory. The galleries are generally fairly airy. There are, however, no latrines underground and no proper method of disposal of dijecta. Where sweepers are employed below, their services are unsatisfactory.

(iv) *Dietary.*—(a) Wages are high enough to allow of generous diet for all workers. There is no shortage of food. The staple diet consists of rice, lentils (dal), vegetable, spices and oil (mustard, ginjelly, mahua seed), with occasional meat (ox, goat or pig) and rarely milk and ghee. Sometimes maize or other flour replaces the rice.

(b) The Jharia Mines Board of Health maintain a special laboratory in which samples of foodstuffs are analysed. The expenditure on this laboratory in 1927–28 exceeded Rs. 10,000 and the number of samples of foodstuffs analysed was 775. In 1928–29 the number of samples examined was 256 and the expenditure over Rs. 7,500. In addition, in the Bacteriological section, samples of water are analysed and 600 samples were analysed in 1928. Two hundred and fifteen prosecutions, with 197 convictions, were instituted in the settlement under the Food and Drugs Adulteration Act in 1927–28. There were 50 prosecutions with 38 convictions under the same Act in 1928–29. Five cases were brought under section 273 of the Indian Penal Code for selling food unfit for human consumption in 1927–28 and three cases in 1928–29. Investigation is being carried on by the Jharia Mines Board of Health for an amendment of the by-laws with the object of prevention of adulteration of foodstuffs. No decision has yet been arrived at.

(v) Physique is almost invariably good, especially so in the case of Bilaspuris, Santals and Bowries and persons from north-west provinces. The Beldars who usually work on the surface are not so good.

(vi) *Effects of disturbance of sex ratio in industrial cities.*—The census reports show that in the district of Manbhum in which the Jharia mining settlement is situated, the number of females per thousand males has dropped, as shown below :—

1891	..	..	..	..	..	1,012
1901	..	..	..	..	..	992
1911	..	..	..	..	..	963
1921	..	..	..	..	..	937

The figure 937 is the smallest figure for any district in the province which results in the smaller birth-rate that occurs in the colliery portion of the mining settlement, *vide* answer to (23) (ii).

24. Extent of Medical Facilities provided.

(i) *By employers.*—A statement is given below showing certain information regarding the eight hospitals maintained in the coalfield :—

Serial No and name of hospital.	Accommodation.	Staff provided.	Amount of daily allowance paid to inmate.	Amount of daily allowance paid to attendant.
1.—Malkera - Chottdih hospital.	Three beds in main hospital, with a separate isolation hospital of four beds.	(i) One doctor (L M P.) (ii) One unqualified dispenser. (iii) One dresser.	Rs. a. p. 0 8 0	Rs a. p 0 4 0
2.—Katras colliery hospital.	Two wards with four beds in each. Also an infectious disease block with three rooms of two beds each.	Ditto	Full wages	Full wages
3—Mudidih hospital	Two wards of five beds each, with plenty of deep verandah space for extra beds. Also a large separate infectious disease hospital.	(i) One doctor (L M P) (ii) One qualified Compounder. (iii) One dresser.	Ditto	Ditto
4.—Loyabad hospital	Five beds for men and four for women in main building. Also an isolation ward of three rooms with three beds in each.	(i) One doctor (L M P.) (ii) One compounder. (iii) One dresser.	Half wages	—
5 —Kustore hospital. .	Two wards with six beds in each. One ward for women but used for men if there are no women inpatients.	(i) One doctor (ii) One Assistant Medical Officer of Sub-Assistant Surgeon class. (iii) One qualified compounder. (iv) One dresser. (v) One female attendant	0 10 0	—
6 —Jamadoba hospital	Two wards of six beds each, one of which is reserved for women when necessary.	(i) One doctor (M B) . . (ii) One unqualified doctor of twenty years' experience. (iii) One qualified compounder. (iv) One dresser.	0 10 0	0 8 0
7 —Bararee hospital. .	Two wards. Four beds in male and two in female ward.	(i) Two doctors (L M P) (ii) One qualified compounder. (iii) One dresser.	Advance of annas 4 or annas 6 recoverable from compensation, if any.	—
8.—Bhowra colliery hospital	Two wards, four beds for men and three for women. Also three dhowras close by used for overflow or for families accompanying patients.	(i) One doctor (L M S) (ii) One doctor (L C P) (iii) One qualified compounder.	—	—

Besides these at every colliery there is a dispensary, its size and scope varying with the number of workers employed. A schedule of drugs and appliances set up under the Board's By-law No. 27 indicates the minimum requirements which must be maintained. Every colliery with 30 workers or more is compelled to employ a registered medical practitioner. Of the 215 collieries now working, 36 have whole-time medical practitioners, 114 have part-time, and 65 are exempt as having not more than 30 workers. No medical practitioner can be engaged without the approval of the Board's Chief Medical Officer.

(ii) *By Government.*—At Dhanbad there is a fully equipped charitable hospital of 46 beds which, though it is maintained by the local board, is in charge of a Government Assistant Surgeon and under the supervision of the Inspector-General of Civil Hospitals. To this hospital are sent from the collieries all those cases which, from their serious nature, cannot be suitably dealt with on the spot. The Jharia Mines Board of Health makes an annual grant for the upkeep of this hospital and maintains a motor ambulance for the transport of patients.

The following non-recurring grants have been given by Government for expenditure on Medical in the Manbhum district (figures for the Dhanbad sub-division are not available) —

							Rs
1920-21	..	..	..	..	..	..	18,000
1921-22	..	..	..	..	..	..	24,750
1924-25	..	..	..	..	..	..	13,000
1925-26	..	..	..	..	..	..	12,000
1926-27	..	..	..	..	..	..	18,000

A sum of Rs 9,600 recurring is also provided by Government annually for expenditure on local fund hospitals and dispensaries in the Manbhum district.

(iii) *By other agencies* —The local board maintains three charitable dispensaries—two in the Jharia field and one in the Mugma field. The Raja of Jharia maintains a charitable hospital at Jharia with seven beds, which is under the supervision of the Inspector-General of Civil Hospitals.

(iv) The extent to which accommodation for women is provided in the hospitals maintained by collieries and the extent to which family attendance, etc., are provided in the hospitals maintained by collieries, are given in answer to question (24) (i). In the Dhanbad district board hospital four beds in an improvised ward, besides one in the isolation ward and one in the small-pox ward, are provided for women, where a lady doctor of the Sub-Assistant Surgeon class and two nurses are provided. Under the supervision of the assistant surgeon the lady doctor attends female indoor and outdoor patients. She occasionally attends maternity cases outside hospital when people can afford to pay her fees, but her services are not generally utilized by female labour of collieries. The nurses are fully occupied with their duty in the ward. The Jharia Mines Board of Health pays a contribution of Rs 2,000 towards the cost of the female medical staff of this hospital.

25. Extent to which Medical Facilities are utilized.

(i) It may be said that the facilities provided are utilized to their fullest extent. It is true that Santals and some others occasionally prefer to rely upon indigenous *nostra*, but the whole tendency is towards the acceptance of Western medicine and treatment.

(ii) For most ailments and accidents, women are willing to avail themselves readily of the facilities provided, but for diseases peculiar to their sex they appear averse to being treated by a male doctor. Thus maternity cases rarely reach a hospital except occasionally in extremes. The wives of *babus* and similar members of the staff are learning the benefits of skilled attendance at labour, though the miners' wives do not as yet aspire to anything beyond their own dangerous *dais*.

26. Latrines and other Sanitary Arrangements.

A —*Latrines.*

(i) *At work places* —Underground scavengers are employed as ordered by the Mines Act. Their work is without exception inefficient owing to the lack of arrangements for the removal of night-soil. There are no latrines below ground.

(ii) *At home* —Attempts have been made to deal with the problem of promiscuous defæcation, with little success. The individual still resorts to the *maidan*.

The "Aqua privies" provided on mines were little used, though in Jharia, Katras and Kirkend bazars, the public latrines installed by the Board are well patronised. A septic tank latrine on one colliery is proving very successful.

For the removal of ashes and other rubbish, gangs of sweepers are employed on the collieries, adequate conservancy arrangements being insisted upon under the Board's by-laws.

B —*Water Supply.*

(a) The Jharia Water Board supplies a piped supply of filtered and chlorinated water from Topchanchi reservoir. About two-thirds of the collieries in the Jharia field are connected up to this supply. The remaining one-third will connect up as soon as circumstances permit, the water mains do not extend to the Mugma field. Meanwhile, their water supply (from wells) is watched by the officials of the Board.

(b) In addition to the provisions of a piped water supply, the Board in 1928-29 reserved for domestic purposes the water of one tank in Jharia and one in Katras. It also prohibited the use of water for any purposes from the railway tank at Jharia and the Katu river at Katras, and for this purpose employed *chaukidars* for the control of the water supply throughout the year. In addition, at times at which there is risk of epidemic, *chaukidars* are appointed temporarily for tanks that are either reserved or prohibited for domestic purposes.

(c) The actual expenditure incurred by the Jharia Water Board on the piped water supply up to the 31st March, 1928, has been Rs. 97;96,500. This amount includes repayment of loans (Rs. 5,32,000) and interest on loans (Rs. 21,15,000). Of the total expenditure Rs. 60,37,000 was derived by loans from Government, and Rs. 4,82,000 was contributed by Government. The balance of Rs. 26,78,000 has been provided by a cess on the coal industry. The balance of loans outstanding on the 31st March, 1928, was Rs. 61 lakhs.

27. Extent and Nature of Official Supervision.

(i) *Works of Boards of Health in special areas.*—The Jharia Mines Board directs and supervises every phase of disease prevention in the mines and to further this end is concerned also in supervising the villages throughout the whole coalfield area with certain extensions beyond to those villages whence the colliery labour is derived. The Board maintains a Medical Officer of Health and also an Assistant Medical Officer of Health.

(a) The Board obtains its income from a tonnage cess on coal which was raised for the year 1928–29 to Re. 1.4.0 per 100 tons, having previously been Re. 1 per 100 tons, and also from a royalty cess which stands at 15 per cent. of the road cess paid by royalty receivers. The income derived from these two sources in the year 1928–29 was :—

	Rs.
Tonnage cess	1,31,550
Royalty cess	13,900

(b) *Constitution of the Board.*—The Board consists of eleven members, viz, six nominated by Government of whom four are officials and two non-officials, four elected by the mine-owners and one elected by the royalty receivers. Of the two non-officials nominated by Government one is in practice elected by the Colliery Managers' Association and one represents the general public.

(c) The following is a summary of the activities of the Board :—

(1) Supervision of housing of labour.

(2) Sanitation on collieries, in bazaars and to some extent in villages within the settlement area.

(3) Supervision of medical arrangements including the provision of a motor ambulance.

(4) Prevention and control of epidemics on collieries and in villages within the Board's area.

(5) Supervision of all water-supplies.

(6) Vaccination both in collieries and rural areas. There is probably no part of India where vaccination is more thoroughly carried out.

(7) Registration of births and deaths in colliery and in rural areas.

(8) Prevention of food adulteration.

(9) Public health lectures both in colliery and in rural areas illustrated by magic lantern slides.

29. Diseases—Prevalence.

(a) Hook-worm is generally regarded as an industrial disease more especially amongst miners. In India, however, owing to the habits of the people the disease is by no means confined to mining areas and miners, and the ordinary agriculturist suffers almost as badly. Investigations were carried out in the Jharia mining area for a period of four years from 1920–23, and over 15,000 persons were examined of whom 70 per cent. at least were found to be infected. It is probable that still a very large percentage of adult labourers are infected but the Medical Officer of the Jharia Mines Board of Health reports that owing to some cause which is not absolutely clear, though it is probably the avirulent nature of the local strain of hook-worm, illness (even slight illness) is produced only in a very small proportion of cases, and it is exceptional in the Jharia coalfield to find a case of anaemia due to hook-worm serious enough to make a labourer unfit for work.

(b) *Coal dust* appears to produce as little ill-effect here as in mines in England and elsewhere.

(c) Figures regarding cholera and small-pox are given in answer to question 23.

B.—INDUSTRIAL CONCERNS OTHER THAN JHARIA MINING SETTLEMENT.

23. General Health Conditions of Workers.

Introductory.—Except for the mining settlement the only other area in the province which has to any extent a large industrial population is Jamshedpur. With regard to the rest of the province the conditions of persons engaged in industry

can be considered as identical, or practically so, with those of the neighbouring population. As regards Jamshedpur the most characteristic feature of the population is that it is not a true industrial population dependent on the wages of industry for its existence. It is an agricultural population adding to its income by working in the steel trade. Practically all the men employed either own land and cattle themselves or belong to a joint family that lives on the land. The only indigenous class that is entirely dependent on its wages is the Anglo-Indian. The population, therefore, at Jamshedpur is not stationary and is frequently likely to return to its villages at time of sickness or child birth.

Generally, the health conditions are fairly good. There has been no epidemic of cholera in Jamshedpur for a long time, and since January, 1927, there have only been 13 cases of cholera with three deaths. There was an epidemic of small-pox in the beginning of 1926 but there has been none since then. The following statement shows the incidence of diseases during the last three years—the figures show the number of attacks as obtained from the hospital :—

	1926.	1927.	1928.
Malaria	803	914	771
Kala Azar	64	20	64
Tuberculosis	80	107	181
Hook-worm	10	18	25
Fever	39	24	61

(a) (i) In the larger factories the working conditions are generally satisfactory. In some of the smaller factories the Officiating Chief Inspector of Factories has suggested that the amount of ventilation is insufficient, and has proposed that a standard ventilation based on the ratio of 10 square feet to each operative should be provided.

(ii) In his annual reports since 1921 the Chief Inspector of Factories has invariably reported that the health conditions of employees have been normal. In the case of factories no abnormal incidence of epidemics has been noticed.

(iv) The general dietary of industrial workers can be considered to be the same as that of the ordinary population, except possibly at Jamshedpur. The Jamshedpur Public Health Staff and Market Staff do their best to prevent the sale of adulterated food-stuffs. Bad fish is destroyed whenever found. Other articles thought to be adulterated are seized and analysed in the town laboratory, and if found bad are submitted to the Magistrate for disposal. The cost of living in Jamshedpur is high, and a large part of the cost of food is freight: the area in which the town is situated lies in the angle of two neighbouring rivers, and the communication with surrounding country is difficult, which raises the cost of ordinary bazaar purchases. Market gardening has, however, recently increased, and has brought down the price of vegetables a little. Another factor which has raised the cost of living is the high wages paid by the companies which has served to create an artificial standard of comfort. The proposed creation of the co-operative stores mentioned below may help towards reducing the cost of living.

(v) *Physique*.—At Jamshedpur the workers come mostly from outside and comparatively few have settled down in the place. The tendency of those who have settled down has been towards improvement in physique due probably to regular work, wages and open air conditions of living. In the rest of the province the physique of industrial workers may be taken as being similar to that of the rest of the population.

24. Extent of Medical Facilities Provided.

(i) The larger concerns frequently provide full medical facilities for their employees and smaller concerns frequently subscribe to the nearest local fund dispensary.

Various companies from whom reports have been received give the following information regarding medical facilities provided by them :—

Kuchwar Lime and Stone Company provide a dispensary with indoor accommodation for two persons with a qualified doctor who is not allowed private practice and a nursing cooly.

Sone Valley Portland Cement Company provide fully equipped hospitals on the works and on the quarry with one qualified medical officer, one compounder for the quarry and one compounder for the works. There is accommodation for both indoor and outdoor patients.

Kalyanpur Lime Works, Limited, provide a hospital with a fully qualified medical officer (M.B.) with locally recruited ward boy assistants. Accommodation for both indoor and outdoor patients is provided.

Tata Iron and Steel Works.—The Company maintains a hospital of 140 beds, four outdoor dispensaries and three First-aid stations and an isolation hospital for infectious diseases having 52 beds. There are 24 doctors, 14 registered nurses, three probationers on the staff besides compounders, dressers and warders, etc. Of these two doctors are specially kept for isolation hospitals. Two ambulance cars are used for bringing injured and sick persons to the hospital and the employees are treated free whether in the hospital or at their quarters. For medical attendance of their families a nominal fee is charged.

Tinplate Company.—The Company maintains a hospital outside the works gate, and a First-aid post inside the works. The works hospital comprises a dispensary, minor dressing station and a ward with three beds for in-patients as well as usual offices. The staff consists of two qualified doctors, one hospital trained nurse, five compounders and two dressers.

Purua Sugar Factory pay a monthly salary to the local dispensary doctor and carry a stock of medicine in the factory.

Bihar Sugar Works.—A dispensary and medical attendant are maintained by the Company. In serious cases the Assistant Surgeon of Siwan is called at the Company's expense.

Janakpur Rice Mill.—Subscription paid to district board dispensary.

The Peninsular Tobacco Company maintain a full-time European medical officer together with a compounder and dresser and provide an outdoor dispensary equipped for the relief of minor accident and common ailment. Medical attention is given free to all their employees.

Delhi Lime Company, Limited, at Gaya.—The necessary medicines are kept in stock and the nearest doctor is sent for in urgent cases and for accidents. The company bears all charges.

F. F. Christien and Company, Limited (Mica Mining).—Dispensaries are established for the accommodation of in-door patients at headquarters in charge of a qualified medical man.

Bengal Iron Company, Limited (Agita and Pansura Mines).—A fully equipped dispensary is kept at both mines, one in charge of a qualified dispenser and the other of a qualified doctor who is in charge of the medical and sanitary works in both mines. A trained Indian nurse is kept for women and children.

Indian Cable Company maintain two skilled compounders who supply free treatment and medicine. When a case occurs beyond the skill of the staff maintained the company provide transport facilities to send to the hospital at Jamshedpur.

(ii) It is impossible to give definite figures regarding the extent of medical facilities provided by Government for the industrial population. The following figures give the amounts spent by Government throughout the province :—

(a) Non-recurring grants made to local bodies for medical relief :—

						Rs.
1924-25	..	..	..	..	..	2,57,000
1925-26	..	..	..	..	..	3,34,000
1926-27	..	..	..	..	..	4,82,000
1928-29	..	..	..	..	..	Nil.

(b) Non-recurring sums spent on construction of Government hospitals and dispensaries for the ten years ending 1927-28 amounted to Rs. 22,24,185. On original works in connection with such hospitals and dispensaries the following sums were spent by the Public Health Department :—

						Rs.
1924-25	..	..	..	..	..	2,07,975
1925-26	..	..	..	..	..	2,37,887
1926-27	..	..	..	..	..	93,758
1927-28	..	..	..	..	..	1,02,326

(c) The recurring grants made to local bodies for the upkeep of local fund dispensaries, etc., in 1928-29 amounted to Rs. 3,30,795.

(d) The recurring cost of upkeep of Government hospitals and dispensaries in 1927-28 was Rs. 7,46,382.

(iii) The district and local boards provide a considerable number of dispensaries. The usual standard is one dispensary in each thana, but this standard is frequently exceeded. In each district and subdivisional headquarters there is a hospital which is maintained by grants received from the district board, municipalities and from Government.

(iv) *Provision for women doctors, etc*

Bengal Iron Company, Limited—Agata and Pansura mines—A trained Indian nurse is kept at each dispensary to treat the women and is largely utilized

25. Extent to which Medical Facilities are Utilized.

The following reports have been received from factories regarding the number of patients treated during the year 1928 at the factory dispensary :—

Kuchwar Lime and Stone Company.—Outdoor patients 1,362, indoor patients 2

Sone Valley Portland Cement Company.—Outdoor patients 5,574, indoor patients 29

Kalyanpur Lime Works, Limited—Outdoor patients 2,010, indoor patients 2

Tata Iron and Steel Company.—Number of new cases treated was 210,210, against 206,899 and 196,120 in two previous years.

The indoor hospital is nearly full at all times.

It is estimated that 30 per cent. of the total cases are outsiders who have no connection with the company.

Tinplate Company.—It is reported that the medical facilities are freely utilized by the employees of the company and of neighbouring companies and even by villagers residing ten to twelve miles away. In 1928, 89,193 cases were treated, and there were 1,980 minor operations.

Peninsular Tobacco Company—The average daily attendance at the dispensary is about 75 persons.

Dehri Lime Company, Gaya.—About 33 persons are treated in a month for simple ulcers.

F F Christien Company, Limited.—Approximately 12,000 outdoor and 100 indoor patients are treated yearly.

Women generally attend the dispensaries for ordinary ailments but except at Jamshedpur do not generally attend the dispensary in maternity cases.

26. Latrines and other Sanitary Arrangements.*Factories*

(b) In 1921 the condition of latrines in factories was not entirely satisfactory, and in that year type plans for the provision of latrines were prepared by the Director of Public Health. In 1922 the conditions of latrines showed steady improvement. New latrines were built or existing latrines were structurally altered where ordered and since that date the Chief Inspector of Factories in his annual reports has consistently stated that the provision of latrines is up to the requirements of the 1924 rules, though in 1925 he notes that it is common to find that the sanitary accommodation provided is in advance of the operative's appreciation of its use.

(c) Rule 30 of the rules allows exemption of factories from the rules regarding latrines under the orders of the Chief Inspector of Factories where there is convenient access to open country. Such exemptions have been most sparingly used and at present 36 factories (including 16 indigo factories, five sugar mills, four rice mills), all of which satisfy the conditions, have been exempted

27. Extent and Nature of Official Supervision.

Administration of Jamshedpur—In the beginning the area on which the town of Jamshedpur stands was acquired by Government for Messrs. Tata Iron and Steel Company, and the steel company themselves developed the town providing the necessary dwelling houses, roads, sanitation, etc. The area was acquired at three different times—in 1909–10 3,500 acres, in 1919–20 7,200 acres, in 1920–21 5,000 acres. Of this area 400 acres have been resumed by Government—60 acres for the Dhalbhum subdivisional buildings, and 340 for the Bengal-Nagpur Railway. In 1919 a Committee was formed to submit recommendations for the future administration of the area so as to meet the needs of the industry concerned as well as of the attendant population. The recommendations of this Committee proposed that a Board of Works should perform the administration of the area. The recommendations of this Committee were never carried out, and though a Board of Works was formed, it was not constituted entirely in accordance with the recommendations of the Committee. The Board of Works as formed consisted of six representatives of the steel company, three representatives of the associated companies, and two representatives of the general public. It was constituted by mutual agreement between the companies concerned. Under this agreement the companies, including the steel company, contributed the necessary funds (on a percentage basis) for municipal services such as roads, water, street lighting, etc., and the Board was responsible

for the administration of public health, sanitation, hospitals, fire protection, sewerage, waterways, communications, general welfare work and everything ordinarily administered by the commissioners of a municipality. In 1923 a conference was held under the presidentship of the Minister of Local Self-Government at which a petition received by the Local Government for the establishment of a municipality at Jamshedpur was considered, and it was decided to declare Tata's acquired area a notified area under Section 388 of the Bihar and Orissa Municipal Act, and to extend to it the necessary sections of the Act reserving the question of taxation for the time being. Accordingly, in 1924 the area was duly notified and a Notified Area Committee was appointed to carry out the purposes of the Act, and the members of the Board of Works were appointed as members of the Notified Area Committee. Subsequently certain powers of taxation were given to the Notified Area Committee.

2. Gradually, however, the position has slightly altered and the present position is that the area is administered by the Notified Area Committee, but this Committee has only a small income. For the year ending 31st March, 1928, the income derived by the Committee from taxation was :—

	Rs.
Tax on animals and vehicles	2,753
Miscellaneous receipts	802
Pounds	292

This income is expended mostly on road-making. The Notified Area Committee also passes such bye-laws as are necessary. Meanwhile the Board of Works agreement referred to above lapsed in about 1927, and has not been renewed. The Board of Works, however, still exists, though it only holds very occasional meetings. The present position regarding expenditure by the steel company and the associated companies on what may be called municipal service is as follows :—

(1) The associated companies, which include the Tinplate Company, Indian Cable Company, East Indian Railway Works, the Tatanagar Foundry, have agreed to finance all capital improvements east of the line drawn up the Sakchi Nulla to Tatanagar station except that the steel company will finance all improvements necessary for working the Agrico. Company.

(2) The associated companies deal with medical, water supply, drainage, welfare and lighting within their own areas, and make lump sum annual contributions to the central administration of the town. The lump sum contributions paid by the associated companies to the steel company amount to 0.48 lakhs while the steel company itself pays something over 7 lakhs. With the help of this contribution from the associated companies the steel company finances all municipal services other than those that are being maintained by the associated companies in their own areas.

29. Disease.

Industrial disease is not prevalent in factories in this province.

30. Sickness Insurance.

(i) *Suitability of International Labour Convention.*—The Government of India has stated in letter No. L-1518, dated the 20th September, 1928, "that the introduction in India of any comprehensive scheme on the lines of the conventions is not a practical proposition in existing conditions." This is particularly the case in this province, and the draft conventions are not suitable to the conditions of this province.

(ii) It is not at present possible to introduce any other system of compulsory sickness insurance for the following reasons :—

(a) The labour employed in practically all industrial concerns is extremely migratory. In the mining area a very high proportion of the workers is agriculturist and follows a dual occupation, a large proportion is also seasonal, and the labour force employed fluctuates within wide limits. Similarly, in Jamshedpur the very large cooly force is fluctuating in character. In both South and North Bihar most of the factories are oil, sugar, and rice mills or indigo factories which are themselves seasonal in character, and the greater part of the labour force is employed only for a portion of the year. It can be safely said that throughout the province the stable labour force is distinctly in the minority.

(b) It is improbable that labour would agree to any deduction from wages for compulsory sickness insurance.

(c) It is doubtful to what extent it would be possible to impose any additional burden for such purpose on industrial concerns. The coal industry is at present in a state of depression and it will be seen from instances given in answer to (30) (iv) that the larger concerns are already to a certain extent meeting their obligations in the matter of sickness payments and it is doubtful whether the smaller concerns would be able to shoulder the additional burden. Many of the owners of small factories throughout the province are probably in the same position.

(d) It is improbable, therefore, that any system of compulsory sickness insurance could be effective in the present industrial condition of the province unless such system was subsidised by the State.

(e) The local Government is unable to incur any financial liability in the matter. Their revenues have ceased to expand and they are only able with difficulty to maintain their existing institutions and services. They derive directly no revenue from the proceeds of industry. The local Government do not consider that they would be justified in undertaking to subsidize sickness insurance for a small class of the community at the expense of the rest.

(iii) (a) The prejudice against dispensaries and medical treatment is breaking down even among the aboriginals (who form a large part of the mining population) and Western medical facilities are generally acceptable.

(b) There is no paucity of medical men in this province. The larger concerns are fully provided with their own qualified doctors, while most of the smaller concerns are situated close to Local Fund or other dispensaries to the support of which they frequently subscribe.

(c) It would be necessary to devise a scheme which while allowing benefits to a worker migrating from one industrial concern to another, did not provide benefits for a worker who treats his earnings from labour as merely an addition to his agricultural earnings, and who therefore works only in a factory or mine for short periods and then returns to his agriculture. The scheme therefore could only apply to :—

(1) Workers who had been employed in a concern for longer than a minimum period, which would have to be fixed with reference to the conditions of each industry.

(2) Workers who changed employment from one industrial concern to another without an unduly long period of industrial unemployment. (This would not be unfair to the worker as in the present state of industrial labour in this province there is very little involuntary unemployment).

(d) The scheme would have to be either self-supporting or subsidized by the Central Government.

(iv) Some details are given below showing the extent to which under present arrangements some of the industrial concerns provide for payments to their employees during sickness, as reported by the companies concerned.

Tata's Iron and Steel Works.—(1) Employees absent from work due to injuries sustained by accident in the course of their employment are given full pay during the entire period they are incapacitated.

(2) There is no scheme for payment of unemployment allowances to employees for absence from work for illness. Time lost owing to sickness is usually charged against the leave due or leave likely to accrue. But this is not done in the case of the cooly class of aboriginal employees.

The New Sawaan Sugar Company.—Sickness payments are made to permanent employees but not to casual workers.

Cawnpur Sugar Works.—Sick leave is granted on full pay to permanent employees.

Indian Leaf Tobacco Factories.—Permanent employees are granted 35 days' leave per year with full pay which covers sickness.

Sree Mahabirji Rice and Oil Mills.—Permanent servants only receive sickness payment.

Bishwanath Rice Mills.—Full pay for absence owing to sickness to their monthly rated workers 13 in number.

Ice Factories at Bahugaon and Kaluparaghat pay during absence on sickness.

Hungur Rampur Coal Company pay sickness allowance at the rate of two annas per head.

Sawaan Desi Sugar Factory pay up to one month on account of sickness.

Marhowrah Sugar Factory.—Sickness payments are made if the case necessitates it and conduct, attendance and work are taken into consideration.

Pusa Sugar Factory.—Full wages are paid to workers for their absence owing to sickness.

Japaha Sugar Company.—Half salary is usually paid to workers absent from sickness.

Bengal Iron Company.—Skilled workers receive full pay during sickness, unskilled workers receive the full amount drawn in sickness but generally they depart to their homes.

Coal Industry.—(No information is given regarding the Railway collieries as this will presumably be furnished by the Railway Board.)

In the collieries in the Jharia coalfield most collieries make some payment to their employees during sickness. This is done probably with the intention of keeping labour on the mine and is generally paid by collieries to those persons who are recognized by their doctors as being employees of the colliery. It is difficult to obtain definite figures of the amount paid as the payment is frequently not entered separately in the accounts but treated as a charge against coal raising. The amount paid varies from colliery to colliery. Some instances are given.

Messrs. Bird and Company's Collieries.—For indoor patients for serious sickness and accident cases free fooding and full wages while indoor and when discharged though still unfit for work, half wages. All accident cases up to the tenth day of sickness receive full pay and then half pay. While the patient is indoor free ration is supplied to an attendant.

Messrs. Heilgers and Company's Standard Collieries.—These collieries are worked on the contract system and in the cases of ordinary sickness such as diseases, payment to the worker ranging from three annas to eight annas a day is made. This is paid by the management to the employee but is subsequently deducted from payments made by the management to the contractor as the amount is held to be payable by the contractor. In cases of ulcers and other minor injuries resulting from occupation similar amounts are paid by the management.

Collieries owned by Messrs. Andrew Yule and Company, Bhuggutdih Colliery.—Five annas are paid to males and four annas to females who are known to be the colliery labour.

Pashupatinath Rice and Oil Mills and Sikta Rice Mills.—Payments are made to those who occupy the housing provided, if absent owing to sickness.

Samastipur Sugar Company.—Payments are made to employees absent through sickness.

Lodna Colliery pays four annas daily through the contractor.

Pure Jharia Colliery Company pays two annas to four annas to recognized labour.

Balihari Colliery.—Four annas daily is paid to the miners reported sick by the Doctor Babu but there are very few payments.

Collieries owned by the Eastern Coal Company, Limited, pay eight annas per day in accident cases only.

Collieries owned by the Raniganj Coal Association.—Sickness benefit is paid from four annas to Re. 1, according to the nature of sickness or accident.

In the Indian owned collieries sickness benefit is generally given from two annas to six annas according to gravity.

31. Maternity Benefits.

(i) (a) An enquiry was made in 1924 as to the extent of maternity benefit schemes in existence. The results of this enquiry are printed at page 10 of Bulletin No. 32 of Indian Industries and Labour.

(b) At the mining settlement, there has been little change and maternity benefits are still paid at approximately the rates shown by the collieries mentioned.

A statement has been prepared for the Burrakur Coal Company for the period January to December, 1928, showing the amounts paid as confinement allowance for four collieries belonging to this company as Rs. 1473 for 350 cases.

(c) Messrs. Tata Iron and Steel Company have recently introduced a maternity benefit scheme details of which are given in their memorandum.

(d) *Tin Plate Company.*—Women who have been employed by the company for one year or more are allowed six weeks' leave on full pay upon confinement.

(e) *Indian Cable Company* pay fixed wages and supply half a pint of milk per day for six weeks to any woman worker who has been in the employ of the company for nine months previous to the application for the benefit.

(f) In the case of the other factories so far as information has been received, there is no change in the position reported in the bulletin and no other factories maintain maternity benefit schemes. Such schemes, however, are not particularly necessary in the case of the factories in this province as the prospective mother generally returns to her village home for a period before and after childbirth.

(ii) *History of Central and Provincial Bills.*—The resolution given below was introduced in the local Council on 19th August, 1926.

This Council recommends to Government that early steps be taken to protect female labour employed in the coalfields and all industrial plants of the province :—
 (a) By prohibiting their employment during their advanced state of pregnancy and three weeks after childbirth has taken place, (b) and that such companies or firms in this province that have in their employment such labour, providing that a period of six months' service has been given prior to the event, be directed to pay to such persons in the way of maternity benefit a sum of money equal to payment lost during that period.

The resolution was supported mainly on humanitarian grounds, and the mover proposed that the whole cost should be borne by the employer. The resolution was moved by Lala Baijnath and was carried by 35 votes to 27, Government and the representatives of employers opposed the resolution.

(iii) 1. The local Government are of opinion that legislation in the matter of maternity benefit would, at present, be inadvisable and impracticable for the following reasons :—

(a) For many years to come the welfare of women workers during and after the period of childbirth can only be the object of voluntary charitable systems organized by employers or, to some extent by local bodies. Such organization would be directed to the provision, where possible, of female medical aid, of trained *dais* and of creches at the works where, as is now the case at the Tata Iron and Steel Works, infants could be left and looked after while their mothers were at work.

(b) The conditions of life of industrial workers in the province do not compare unfavourably with the conditions of landless agricultural labourers or even of the petty tenantry. The standard of living of the class from which female labour is drawn is such that the husband has no difficulty in supporting his wife from his daily wage during the period before and after confinement when she cannot work.

(c) It would be difficult to obtain a clear definition or limitation of the class of persons to be benefited. This difficulty is aggravated by the semi-agricultural nature of the industrial labour of the province. It would be necessary to lay down that a woman should have been in service for a certain time before she is entitled to claim maternity benefit, and it would also be necessary to obtain some guarantee that the woman would return to work after her confinement.

(d) The last two points are of particular importance in connection with the coal mines. The labour unit in the coal mine is the family, and the woman does not draw wages directly, but through her husband who is paid by the number of tubs filled. The miners work intermittently sometimes for a few weeks only and then return to their villages. At present women in the coalfields expecting confinement almost invariably return to their villages, but the provision of maternity benefits in the colliery would probably stop this salutary practice and possibly do more harm than good. Not only would women regularly or casually employed by the collieries remain there for their confinement but there is nothing to prevent a woman in an advanced state of pregnancy being brought to the mine by a miner who would then claim the benefit on her account.

(e) Any attempt to establish a system of maternity insurance upon so narrow and uncertain a basis as the female industrial population of this province is not likely to be successful in practice.

2. If, however, any legislation for maternity benefit is to be introduced the local Government would make the following suggestions regarding its nature :—

(a) That it would be impossible to support any such scheme by direct contribution from provincial revenues. These revenues under the present system derive very little advantage from the industrial community, and a direct contribution for maternity benefit would in fact have the inequitable effect of taxing the rest of the community for the special benefit of industrial labour. The provincial finances are barely adequate for the supply of the most urgent and essential services to which the public are entitled and until more progress has been made in supplementing their general deficiencies the local Government will not be able to divert any portion of their resources to more particularized schemes.

(b) That any proposal for a central non-contributory insurance fund would not be workable and that the only practical method would be to make the employer liable as in the case of the Workmen's Compensation Act. It is probable that after a little experience insurance companies would be willing to cover the risk.

(c) That in the first instance it should only be applied to organized factories.

(d) That the benefit could only be given to a woman who had been at least six months in the service of the employer immediately preceding the date on which she absents herself from work.

(e) That it would only be necessary that the period of enforced rest should be four weeks before and four weeks after confinement.

V.—WELFARE.

(The answers to all the questions in this section except questions 37, 38, 39 are given separately for the Jharia Mines Board of Health and all other industrial concerns in the province.)

A.—JHARIA MINING SETTLEMENT.

32. Extent of Welfare Work.

(i) The labour population is so migratory that it is difficult for employers to do anything in this connection. There is, however, a tendency to provide football grounds for employees, though these are generally only utilized by the skilled and clerical staff or their dependants.

(ii) A Colliery Employees' Association with offices at Jharia was formed to look after the interests of the labouring class. A few lantern lectures were organized, but the activity of the association does not appear to have been noticeable except in the matter of pressing for compensation in accident cases.

36. Provision of Educational Facilities by Employers.

(iii) *For Workers' Children.*—Only four collieries are known to provide primary schools, but most of the larger collieries make subscriptions for the maintenance of the Local Board primary schools in their neighbourhood. Some instances are given below :—

Standard Coal Company maintains two schools, one for workers' children, but few attend, the other for clerks' children.

East Indian Coal Company's Barari Colliery pay Rs. 25 a month for a teacher, and are quite prepared to put up a school if there is a demand.

Kenduadih Colliery.—The company built a school at a cost of Rs. 4,000. In order to get its clerical staff to take an interest the company tried to organize a managing committee which would pay for masters other than the headmaster, who was paid for by the company, but little interest was taken and the school failed, and the building is now occupied as a post office.

Bhuggutdih Colliery.—Rs. 20 a month is paid towards the upkeep of a lower primary school jointly by the Ena and Bhuggutdih collieries. The colliery has built a school building.

Lodna Colliery.—A night school is maintained for the sons of workers and boys working above ground, but is not well attended. Subscriptions are given to day schools and a building has been given.

Pure Jharia Colliery.—A primary school is maintained, the roll-number is 45, of whom skilled labourers' sons may be estimated at 70 per cent. and miners' sons very few.

(iv) The schools are very little used by miners' children occasionally used by the children of skilled staff, but mostly by children of clerical staff.

B.—OTHER INDUSTRIAL CONCERNS.

32. Extent of Welfare Work.

(i) Most of the industrial concerns are too small to do much in the nature of welfare, and practically the only provision that is made by most employers is the provision of football grounds and grounds for tennis or wrestling, and in some cases competitions are held and prizes are given for sports.

A great exception to this general view is Messrs. Tata Iron and Steel Company, who pay very considerable attention to the welfare of their labour at Jamshedpur. (For particulars *vide* their Memorandum.)

The following reports regarding welfare activities have been received from other companies.

Sone Valley Portland Cement Company make arrangements for outdoor games and also for indoor games in a club. Provide dramatic shows and cinema performances annually.

Bengal Iron Company's Mines.—Skilled workers have athletic clubs in each mine, a reading room and a supply of books.

Indian Cable Company.—The company have organized but do not contribute to the following :—

(1) The Cable Company provident fund to which 37 per cent. of the total work people, i.e., 69 per cent. of the skilled workers (as unskilled are not willing to contribute). There was a tendency to use the society as a loan society and not as a provident fund. The committee realizing this have tightened up the rules relating to loans. It is intended that if in the future the finances of the company will allow it the company will control the fund contributing proportionately to the investments of the members.

(2) *The Cable Company's Welfare Association.*—There exist three sectional committees controlled by one central committee, e.g., literary, dramatic and sports. In the literary there is a reading library well equipped with magazines and books, the dramatic section is responsible for the arrangements of English and Bengali plays, the sports section arranges the annual two days' sport in the company held in January each year. Prizes are given and it is reported that the the great feature of the games and sports is the sportsmanlike quality of the play.

In addition the company have organized a co-operative dairy farm for the supply of pure milk to the employees and plans are at present being prepared for the erection of a club room and a building for the staging of dramatic productions.

Tin Plate Company.—The company has provided a suitable club house which is utilized as a club by the Indian employees and is run entirely by the members.

Messrs. Christien and Company.—Encourage sports, provide for polo grounds and have a small indoor club.

(ii) In concerns other than those at Jamshedpur little is done. At Jamshedpur the Tata Iron and Steel Company reports the following welfare activities of other agencies.

The Vivekananda Society, a branch of the Ramkrishna Mission, is doing very useful work chiefly among the aboriginal population. They have four free schools, a library, reading room and students' home. They also do very useful work in times of distress by floods, epidemics, etc.

Women's Council.—The Jamshedpur branch of the Bihar and Orissa Council of Women has recently been started for welfare work in the town in general.

Sewing Circle.—Certain ladies of Jamshedpur started a weekly sewing circle where they make useful articles for the hospital and other deserving institutions.

Mahila Samity.—This is a society of Indian ladies who are doing very useful work there. They have weekly classes for sewing, needlework, etc., and also run a Sunday school and a literary section. They also make useful articles for the poor people and for deserving institutions.

Private Cinemas.—The Jamshedpur cinemas give cheap cinema shows every day in "L" town and other private cinema companies are also starting in the near future.

In the Golmuri area there is the Golmuri Club which is the centre of the social life on that side of the town and also runs sports in that area. There are also two Indian clubs on that side.

33. Employment of Welfare Officers and Workers.

So far as is known, the Tata Iron and Steel Company is the only company that employs a welfare officer. This company has just appointed a welfare officer with an office and staff to co-ordinate the various welfare activities that have been carried on by the Steel Company.

36. Provision of Educational Facilities by Employers.

(a) Generally, industrial concerns do not provide any educational facilities for their employees, but the employees' children make use of the neighbouring schools maintained by local bodies which are generally close to the factories. Exceptions are the various Railway companies details of which will be given by the Railway Board and Messrs. Tata Iron and Steel Company. In some cases certain educational facilities have been provided and closed down owing to lack of support, an instance of this is :—

Peninsular Tobacco Company, Monghyr, where at one time educational facilities for half time workers were provided, but owing to continued irregular attendance these facilities were discontinued.

(b) The educational facilities provided by Messrs. Tata Iron and Steel Company are given in their memorandum. (To some of these educational institutions subscriptions have been given according to their financial ability by the other associated

38. Co-operation.

VII.—SAFETY.

43. Existing Regulations in Factories.

The existing regulations in factories regarding safety are given in rules 34-56 of the rules published with notification No. 1194—Com. of the 7th April, 1924. A revision of these rules has been under the consideration of the local Government, and draft rules in which the rules relating to safety are Nos. 35-57, have been framed and have been published in notification No. 1801, dated 31st May, 1929. These rules clear up certain defects that previously existed in the rules relating to safety and are considered to be satisfactory.

44. Incidence of Accidents in Factories.

(a) The incidence of accidents during the years 1922 to 1928 are given in the statement below :—

—	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Average daily number of persons employed.	68,752	67,951	70,015	73,641	74,323	71,400	68,100
Fatal accidents ..	17	17	43	25	54	36	43
Serious accidents ..	249	146	160	302	366	346	420
Minor accidents ..	1,007	1,005	1,010	1,402	1,803	1,671	1,386
Total accidents	1,273	1,168	1,213	1,729	2,223	2,053	1,849
Percentage of fatal accidents to total persons employed.	0.02	0.02	0.06	0.03	0.07	0.05	0.06
Percentage of total accidents to total persons employed.	1.85	1.71	1.73	2.34	3.00	2.87	2.71

(b) A very large proportion of the accidents that occur in the province occur in the metal manufacturing industry, which is almost synonymous to Tata's factories. The figures of incidence of accidents are, therefore, divided up in the table given below between metal manufacturing industries and all other industries. The accident rates for all other industries compare favourably with those in other provinces of India :—

Metal Manufacturing Industry.

—	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Number of accidents ..	415	625	808	1,367	1,725	1,627	1,373
Rate of total accidents per 100 employees.	1.89	2.55	2.74	4.25	6.0	6.23	6.32
Number of fatal accidents.	13	13	36	20	38	29	31
Rate of fatal accidents per 100 employees.	0.06	0.05	0.12	0.06	0.13	0.11	0.14

All other Industries.

Number of accidents ..	858	543	405	362	498	426	476
Rate of total accidents per 100 employees.	1.84	1.26	0.97	0.87	1.1	0.94	1.04
Number of fatal accidents.	4	4	7	5	16	7	12
Rate of fatal accidents per 100 employees.	0.009	0.01	0.02	0.012	0.03	0.01	0.03

45. Causes.

1. The classification of the causes of accidents has been altered with effect from 1927 in accordance with the recommendations of the International Conference of Labour Statisticians. The figures for 1927-28 are given in the statement below :—

Causing agent.	Number of accidents.	
	In 1927.	In 1928.
1. Machinery	740	453
2. Transport	86	58
3. Persons falling	186	191
4. Falling objects	439	457
5. Hand tools	296	130
6. Electricity	26	39
7. Poisons, corrosive substances and occupational diseases.	30	22
8. Explosion and fires	143	198
9. Miscellaneous	159	203

2. A classification of the average of eight years, figures of the province as a whole ending 1928, and expressing each class of accident (classified under causing agents) as a percentage of the total accidents, shows the accidents as grouped below :—

	Per cent.
1. Falling or slipping weights	23.46
2. Machinery or plant peculiar to the industry	19.58
3. Miscellaneous	14.57
4. Hand tools	12.03
5. Persons falling or stumbling	9.46
6. Machine tools	6.44
7. Rolling stock on lines	4.09
8. Cranes, hoists, winches and the like	3.93
9. Electrical machinery, apparatus or conductors	1.71
10. Chemicals	1.28
11. Explosions	1.14
12. Mill gearing, shafts, pulleys and drums	0.94
13. Tanks, pits, wells, reservoirs and other floor openings	0.91
14. Belts	0.46
All accidents	100.00

3. In industries, other than metal manufacturing industries, the accident rate has been considerably reduced since the formation of the separate inspectorate for this province, and the figures call for little remark. In May, however, be noted that in this class a considerable number of accidents occur in connection with the construction of buildings, etc., which are actually outside the control of the Factory Inspectorate.

4. In connection with the incidence of accidents in the metal manufacturing industry, the following facts may be noted :—

(1) From the figures collected by the Chief Inspector of Factories when at home on leave in 1925 showing the incidence of accidents in the district of Middlesbrough, England, in metal manufacture in the year 1924, it appears that the combined accident rate in that district for that year was 8.44 per cent. of persons employed; which is higher than the rate for any metal manufactory in this province.

(2) Figures have been received giving the rate of accidents in the whole steel trade in America. A comparison with these figures is not absolutely safe, as no enquiry has been made into the standard of reportability of accidents, while also the figures are worked out for Tatas on the average number of operatives, and in America on full year's workers. The figures for fatal accidents

are, however, interesting as a comparison. A comparative statement is given in the figures below. The figures seem to show that it is in the blast furnaces that the accident rate in Tata's is high :—

Accident Rate in Tata's compared with America.

Department.	Year.	Number of person.	Number of accidents.	Total accident rate per 100 men.	Fatal accident rate per 100 men.
<i>Whole Industry.</i>					
American	1926	436,692	33,230	7.6	0.073
Tata's	1927	21,791	1,514	6.9	0.108
Tata's	1928	17,372	1,273	7.3	0.13
<i>Blast Furnace.</i>					
American	1926	25,893	1,986	7.67	0.162
Tata's	1927	1,367	126	9.22	0.292
Tata's	1928	762	96	12.60	0.131
<i>Open Hearth.</i>					
American	1926	22,727	1,440	6.33	0.224
Tata's	1927	2,379	162	6.8	0.083
Tata's	1928	1,740	122	7.01	0.287

N.B.—The figures for Tata's have been calculated omitting in column 3 the labour employed in Agrico and by contractors—the numbers of which are not known. The number of fatal accidents occurring to persons employed in Agrico and by contractors are also not taken into account in calculating the percentages in column 6. If this labour and fatal accidents to it were included, the percentages for Tata's in column 5 would probably be slightly lower and in column 6 would be larger.

(3) According to the Chief Inspector, inspection shows that in any given year the bulk of Tata's accidents are the inevitable consequence of carrying on a heavy and inherently dangerous industry with a personnel that is, judged by common industrial standards, greatly lacking in carefulness, discipline, intelligence and training.

The truth of this may perhaps be illustrated by reports on twelve typical fatal accidents which occurred in 1924, the details of which are included in the annual report of the Chief Inspector of Factories for that year.

(4) An analysis has been made in connection with this increased rate of accidents and the following figures were compiled for accidents occurring in connection with the duplex, open-hearth and blast furnaces. These figures seem to show that the increase in production per man has been a possible cause of the increase in accidents :—

Year.	Total men employed.	Total production in tons.	Tons per man.	Total accidents.	Accidents per 100 men.	Accidents per 100 tons of production.	Accidents per ton per man.
1923 ..	5,244	611,106	117	209	3.98	0.03	0.00000006
1924 ..	6,022	884,533	140	280	4.65	0.03	0.00000005
1925 ..	5,977	1,018,740	170	312	5.22	0.04	0.00000005
1926 ..	5,784	1,141,684	198	524	7.06	0.05	0.00000008
1927 ..	5,526	1,203,216	218	412	7.45	0.03	0.00000006

5. The reduction in the rate of accidents in a factory of this description is largely a matter of invention and requires not only good intention but much ingenuity on the part of the management. It cannot be achieved simply by the exercise of authority. An example of this is given.

The mixer crane accident in 1926 in which 31 people were injured. As a result of investigation into this, the Chief Inspector of Factories suggested that the wear on all important machine members should be checked to gauges and a register kept for the scrutiny of the inspector. It is obviously a fairly large undertaking both for the factory management and for the inspector, and is obviously also a very different thing from the sort of order under Section 18-A that was contemplated at the time the Act was passed. Since then the following steps have been taken by Tata's management :—(a) Registers have been opened for each ladle crane and everything of importance concerning each crane is entered therein. (b) A mechanical and electrical engineer has been appointed as Crane Inspector whose whole time is devoted to crane inspection. (c) Investigations are made of any mechanical or electrical failure whether such failure results in personal injury or not. (d) Ladles are no longer repaired in the Mixer building. (e) A special furnace has been built for the heat treatment of important steel shafts. (f) Instructions have been issued to avoid sharp angles at the journals of important shafts. (g) Shafts with journals of full diameter have been fitted.

6. The high accident rate is also probably largely caused by the frequency of labour turnover but the Steel Company now reports that its labour turnover is on the down grade so that this cause may shortly disappear.

7. The increasing rate of accidents is being most carefully considered by the management of Tata's, and a scheme is under consideration for rewarding that department which shows the least accident rate. For this purpose it is proposed to divide the whole factory into three classes :—A. Those employing more than 1,000 men and having a more hazardous occupation. B. Those averaging from 500—1,000 men and a less hazardous occupation. C. Those employing under 500 men.

It is suggested that for Class A a week's wages, for Class B half a week's wages, and for Class C no award at all should be given to the Department which shows the highest percentage reduction in number of accidents over its own average for the previous two years.

46. Accident Prevention (including "Safety First" Propaganda).

(a) The first three resolutions on this subject which were adopted by the 11th session of the International Labour Conference have been communicated either directly or through the leading associations of employers or by the Chief Inspector of Factories to all industrial concerns in the province. Safety rules have also been drafted by the Chief Inspector of Factories, which have been circulated to the larger factories.

(b) Certain information has been collected from some of the leading industrial concerns regarding the matter which is given below :—(i) Tata Iron and Steel Company has, since 1920, subscribed to the British Industrial Safety First Association and has installed notice-boards all over the plant exhibiting the posters supplied by the Association. The literature received from the Association has also been circulated throughout the works. A safety department is maintained by the company, which at every opportunity brings to the notice of employees the dangers incident to their employment and investigates cases of very serious or fatal accidents. Safety rules for every department in the works have been framed and every worker at the time of employment is supplied with a copy of these rules. Illuminated signs indicating dangerous points serve as night warnings. Departmental Safety Committees function in each operating unit of the works and their recommendations of safety measures for the prevention of accidents are forwarded to a General Safety Committee. The General Safety Committee makes a careful investigation into each serious accident that occurs in the plant and submits to the management recommendations for the prevention of similar accidents. The General Safety Committee consists of employees drawn from different departments of the Works, all of whom are practical men with an intimate knowledge of the hazards of employment in the various occupations of the worker. (ii) In the Jamalpur East India Railway Works safety rules have been framed. (iii) In the Tin Plate Company it is reported that machines and belting, etc., are fenced and that employees are forbidden to wear loose clothing which might get entangled in the machinery. Boats, goggles, aprons, etc., are provided when necessary free of charge. A safety first aid committee consisting of medical officer, the Chief Engineer, Health Officer, Indian foremen and supervisors holds regular meetings presided over by a Senior Official to consider safety precautions and safety propaganda and records of these meetings are maintained.

(c) It has been found that accidents are apt to occur (especially in the smaller factories), owing to the ignorance of engineering problems displayed by managers and also owing to their ignorance of the exact meaning of the instructions of Factory Inspectors, particularly in the matter of construction of suitable fencing. It has, therefore, been decided to prepare and issue certain circular instructions. One such circular has already been prepared regarding "Dams and retaining walls and the dangers of incorrect designs." It is also proposed to issue circulars regarding fencing, safety devices, machinery, strength of beams, precautions in building, workshop illumination and on the return from leave of the permanent Chief Inspector of Factories this matter will be taken up.

(d) It has been found that a certain number of accidents have occurred in Messrs. Tata Iron and Steel Company in connection with their factory railway, and in considering the draft rules to be published under the Factories Act recently prepared, Government proposed under section 37 (1) a rule regulating the working of trains on factory railways. The main objects of this rule were to direct that no train should proceed at a greater speed than four miles per hour and (in order to ensure this) that every train moved by mechanical or electrical power should be preceded during the whole of its journey by a qualified and duly-appointed person on foot provided with signalling flags or lamps, as necessary. This rule was, however, found by the Government of India to be *ultra vires* of the Act and certain suggestions were made by the Government of India which are still under the consideration of the Local Government. The necessity of rules regulating the working of railways in factories is emphasised by the figures in the tables below :—

Railway Accidents in Factories.

	1924.		1925.		1926.		1927.		1928.	
	Fatal.	Total.	Fatal.	Total.	Fatal.	Total.	Fatal.	Total.	Fatal.	Total.
Whole province, excluding Tata's Iron and Steel Works.	1	27	1	30	1	28	—	48	1	11
Tata's Iron and Steel Works ..	9	41	5	45	6	56	11	25	5	29
Whole Province	10	68	6	75	7	84	11	73	6	40

48. First-aid and Medical Relief.

The existing rule framed by the Governor in Council under section 37 of the Indian Factories Act is given below :—

"Rule 75.—In every factory in which the total number of persons employed is 500 or more there shall be maintained in readily accessible position first-aid appliances containing an adequate number of sterilized dressing and some sterilized cotton wool. The appliances shall be kept in good order and shall be placed under the charge of responsible persons who shall be readily available during working hours."

The Factory Inspectorate state that this rule is generally observed.

Certain information obtained from factories is given below :—

(i) In Tata's Iron and Steel Works boxes with first-aid supplies are maintained in each department and two first-aid hospitals in different parts of the plant are staffed with doctors and compounders in readiness to render first-aid to injured employees.

(ii) The Tin Plate Company report that first-aid outfits and stretchers are maintained in all departments and there is a first-aid post with a qualified compounder and dressers in the centre of the works.

VIII.—WORKMEN'S COMPENSATION.

51. Workmen's Compensation Act.

(i) (a) A statement is attached showing the number of cases and the amount of compensation paid throughout the province in the last four years.

Year.	Workmen.	Average number employed per day.	Accidents.					
			Cases of—			Compensation paid for—		
			Death.	Permanent disablement.	Temporary disablement.	Death.	Permanent disablement.	Temporary disablement.
1925	Adults ..	180,269	97	28	1,472	Rs. 45,344 8 0	a. p. 17,723 13 0	Rs. 34,385 8 0
	Minors ..	11,065	7	—	2	200 0 6	—	22 0 0
	Total ..	191,334	104	28	1,474	45,544 8 0	17,723 13 0	34,407 8 0
1926	Adults ..	132,790	91	49	1,994	47,946 8 0	15,537 14 0	39,702 11 0
	Minors ..	1,690	—	1	—	—	128 0 0	—
	Total ..	134,480	91	50	1,994	47,946 8 0	15,655 14 0	39,702 11 0
1927	Adults ..	162,128	117	62	4,015	53,251 0 0	20,916 5 0	49,335 0 0
	Minors ..	1,654	2	—	—	400 0 0	—	—
	Total ..	163,782	119	62	4,015	53,651 0 0	20,916 5 0	49,335 0 0
1928	Adults ..	182,400	168	159	3,646	82,464 0 0	57,707 0 0	38,172 0 0
	Minors ..	2,813	1	1	3	200 0 0	—	12 0 0
	Total ..	185,213	169	160	3,649	82,664 0 0	57,707 0 0	38,184 0 0

The figures for 1925 are not very reliable, but from the figures for the remaining years the following averages can be struck :—

Average payments for death.				Average payments for permanent disablement.		
Adult.				Adult.	Minor.	
Rs.				Rs.	Rs.	
1926	..	..	523	317	128	
1927	..	..	455	337	No case.	
1928	..	..	491	363	,,	

(b) From the tables of cases coming before the Commissioners, it appears that in 1927 only 110 and in 1928 only 148 fatal accident cases to adults appeared before the Commissioners. These figures are less than the figures of fatal accidents shown in the employers' returns, which shows that the provisions of section 8 (i) directing the payment of compensation for fatal accidents through the Commissioner, are not clearly known to all employees. An instance in which such compensation was not paid through the Commissioner was found in a case in Messrs. Christien's mica mines, where compensation was paid direct to the dependents and it was stated that this was done because the dependents did not like to go to Hazaribagh, a distance of 30 to 40 miles, in order to obtain the compensation through the Commissioner. In some cases, however, the discrepancy may be due to payment of compensation by

companies to persons who do not come under the definition of workman in the Workmen's Compensation Act, or who for some other reason are not entitled to compensation under the Act.

(c) In the cases of 43 fatal accidents in 1926 and 54 fatal accidents in 1927, the wages of persons killed were below Rs. 20, so that they would not have obtained the minimum amount of compensation proposed in answer to question (53) (i) below.

(d) The table below shows the number of agreements filed under Section 28 of the Act :—

				Number of cases of permanent disablement.	Number of cases in which agreements were filed.
1926	..	..	..	49	45
1927	..	..	..	62	44
1928	..	..	..	159	144

(iii) There have been no noticeable effects on industry, though some collieries report that the Act has resulted in better supervision of safety arrangements. The Tin Plate Company state that before the Workmen's Compensation Act came into force it was already the practice of the Company to compensate workers for the time lost as a result of bona fide accidents. It is stated that the Act has only had the effect (so far as this company is concerned) of defining and limiting the Company's liability, though it has also benefited the worker by ensuring a certain basis of computation and letting him know exactly what compensation he may expect.

(iv) Insurance facilities in connection with workmen's compensation are available to those employers who wish to insure. Messrs. Tata Iron and Steel Company, however, report that "There are several reasons why employers have not been able to take advantage of the terms offered by insurance companies for this class of insurance. So far as we are concerned, we have not insured against this risk, firstly, because the rates quoted by insurance companies are far too high for the cover they have offered and, secondly, because we are able to make payments on claims that arise under the Workmen's Compensation Act not only to the extent of the liability imposed upon us by law, but a much higher amount for a smaller amount than the premium demanded by insurance companies for a more restricted cover."

As a general rule mines do insure. In the larger industrial concerns the question whether insurance is effective or not is probably decided by economic considerations such as those which have led Messrs. Tatas not to insure. But it is probable also that the premium prevents a number of smaller companies from insuring. Thus the Indian Mining Federation report that in 1924 a number of Indian-managed collieries incurred extra expense by insuring and that the premiums paid raised the cost of raising coal by approximately one anna a ton. Now, however, a number of collieries keep the risk uncovered. There is an obvious benefit to the worker from the existence of insurance facilities (provided smaller companies make use of them), as he thereby becomes certain of payment of the compensation awarded. At the same time there is a certain disadvantage in that the insurance companies would be more likely than the company concerned to contest disputed claims.

(v) *Desirability of compulsory insurance by employers.*—In the opinion of the local Government the difficulties of introducing such insurance are at present insuperable. There would be great administrative difficulties, while it also appears that the rates charged at present by insurance companies for the cover offered are unduly high. Compulsory insurance would, therefore, cause an unjustifiable loss to those companies which invariably meet all claims, as it would force them to insure at rates which in their opinion are at present uneconomic.

52. Desirability of extending Act to other Occupations.

There is no advantage in extending the Act if the workman has no security that he will obtain compensation from his employer, and the practical test for extension is the degree of probability that the workman will ordinarily be able to recover compensation. Extension to unorganized trades or even to all organized trades would only be possible if compulsory insurance were introduced. The local Government are of opinion that the difficulty is that insurance will be too expensive for a large proportion of the employers. Small employers could give so little guarantee of safe working or of stability that the premium would necessarily be extremely high.

The local Government are, therefore, of opinion that until greater experience has been obtained, the best method of extension is to make specific additions to Schedule II only when necessity arises, and have at present suggested to the

Government of India that extension should be made to the following classes of industrial concerns :—(a) Industrial concerns (such as power plant, electric power stations, motor pumping stations, dal mills, etc.) employing less than 20 workmen and which at present fall outside the definition of "Factories" as defined in Section 2(3) (a) of the Indian Factories Act. (b) Such concerns as are at present exempted under Section 46 of the Mines Act from the provisions of that Act. The concerns to which such exemptions have been given are shown in answer to question (72) below.

The question of extending the Act to persons employed in manufacturing explosives was considered in 1928, but the local Government (*vide* letter No. 2801-Com., dated the 12th December, 1928, to the Government of India in the Department of Industries and Labour) were of opinion that except in the Jharia coalfields (where there are 11 licensees who work on a moderate scale) the manufacture of explosives is entirely limited to the making of fireworks, and that the reports received indicated that this was almost invariably carried on as a family business without the employment of paid labour. The earnings of firework makers are low and, therefore, in the rare instances in which paid labour is employed, employers would generally be unable to meet the demand for compensation. The local Government are, therefore, of opinion that, except in the Jharia coalfield, the notification would be infructuous or inapplicable, and that in the coalfields the number of licences are so small as hardly to make the matter worth considering. They would, however, have no objection to the issue of a notification affecting that particular area.

53. Suitability of Provisions relating to—

(i) *Scales of compensation.*—(a) The scales of compensation are generally adequate for the higher grade of workmen but are not adequate for the lowest grades. The present Act prescribes the maxima for the payment of compensation, but no minimum apart from that which is created by the fact that the lowest wage for the purpose of calculating compensation is Rs. 8 a month. It is suggested :—

(1) That the minimum lump sum payment should be—(i) In the case of the death of an adult, Rs. 600. (ii) In the case of permanent total disablement of an adult or minor Rs. 1,000 ; and this minimum should be applied before the percentage calculation according to Schedule I is made in case of permanent partial disablement.

(2) That in the case of temporary disablement if the half-monthly payment is calculated is less than Rs. 10 it should be increased by half the difference between itself and Rs. 10, but subject to the limit that the half-monthly payment should not exceed one-half of the assumed wage.

The scales as proposed by the Seventh International Labour Conference appear to be unnecessarily high for Indian conditions, as the greater number of industrial workers in India take up industrial work to supplement their income from the land, while the prevalence of the joint family system is a factor which renders a high rate of compensation unnecessary.

(b) In some cases employers are already paying considerably more as compensation than the amount which they are required by law to pay.

(ii) *Conditions governing grant of compensation.*—(a) The local Government are of opinion that lump sum payments are at present more satisfactory than recurring payments and consider that the administrative difficulties of a pension system in the present industrial conditions are so great as to make substitution of recurring for lump sum payments unworkable. The migratory character of most of the labour and the long distance from which it frequently comes would make it impossible for employers to administer such a scheme and, if it were introduced, Government would probably be forced to take it over. The pension scheme also involves recurring harassment to the recipients, while the employer on the other hand is exposed to the risk of fraud by substitution made with the object of keeping the payments alive. A lump sum payment also is often more useful to the workman and his dependents, since it enables him either to purchase land or to pay off his debts or mortgages.

(b) The retention of a waiting period appears to be advisable in view of the fact that malingering is very easy in India. It would, however, be possible to accept the principle of the English Act, that if disablement continues for more than four weeks, compensation should be payable from the beginning. It may perhaps be noted in this connection that some of the leading employers, including the Tata Iron and Steel Company and some of the larger mines and collieries, actually pay compensation without claiming the benefit of the waiting period, but at the same time such concerns are opposed to the amendment of the law in this respect.

(c) The present method of defining persons who are entitled to receive compensation as "dependents" appears suitable and it is not necessary to insist that actual dependence should be proved. The following persons might, however, be added to the list of dependents: widowed sisters, widowed daughters and widowed daughters-in-law, as these relatives are frequently found as dependent members of a wage-earner's household.

(d) Clause (b) of the proviso to Section 3 exempts the employer from liability where the injury resulting from accident is directly attributable to certain forms of misconduct on the part of the workman. The operation of this section appears very harsh in the case of accidents involving death or serious disablement. The workman has already suffered heavily for any fault that he may have committed, and it is unfair to him and also unjust to his dependents to deprive them on this account of the support that compensation may give them. The local Government, therefore, are of opinion that the question whether the employer should be exempted from liability in such cases is worthy of serious consideration, and that the principle of the English Act is possibly sounder and that the employer should not be allowed to raise the defence of serious and wilful misconduct in cases of death or serious and permanent disablement.

(e) As noted in answer to 51 (b) above, some cases occur in which compensation for fatal accidents is not paid through the Commissioner. In the present Act, though it is laid down that the employer must pay such compensation through the Commissioner, the obligation cannot be enforced because the Act provides no penalty for default and no time-limit within which the money must be deposited. The object of the provision is presumably that the Commissioner shall decide to which of the various dependents the compensation shall be paid and presumably also a company that does not pay through the Commissioner but pays direct to the dependents might be required to pay again on a subsequent claim being made to the Commissioner by some dependent who had not received compensation. At the same time, however, it seems desirable that as instances are occurring in which such compensation is not paid through the Commissioner, some penalty should be provided for failure by the management to carry out the provisions of the law in this respect.

(iii) *Industrial diseases*.—No cases of compensation payable on industrial diseases have been reported. It is unlikely that any such cases will be reported as there is no likelihood of industrial disease occurring in the province.

(iv) *Machinery of administration*.—The machinery of administration is generally suitable, but the following additions or alterations might be made:—
(a) A penalty should be provided in the Act for failure to comply with the provisions of Section 16. (b) A dependent claiming compensation should have a right of going direct to the Commissioner.

(v) *Other matters*.—These are suitable so far as present experience of the working of the Act is able to show.

54. Desirability of Legislation on the Lines of Employers' Liability Act, 1880.

The Local Government have not had time to call for any opinions, but are provisionally of the opinion that there would be no objection to legislation on the lines of the Employers' Liability Act of 1880. The main difficulty in any such legislation would, however, be the doubt as to whether employers in unorganized industries or even in the smaller organized industries would be able to pay the compensation awarded. It would be impossible to lay down that every employer should insure against his liability under any such Act, and it would have to be left to the employee to decide whether the financial condition of his employer was such as to make it worth his while to move the court for the grant of compensation—that is, the employee would have to take the risk of his employer's inability to pay. The court would also have to be given power to take into consideration the financial condition of the employer in arriving at the amount of compensation to be awarded. If legislation was introduced, it would probably be most satisfactory if actions for recovery of compensation under the new Act were instituted in the court of the Commissioner for Workmen's Compensation. The Commissioner should be given power to decide (in cases to which the Workmen's Compensation Act and the new legislation both applied) under which Act compensation should be awarded. It should not be awarded under both Acts. Before, however, any such legislation could be undertaken, it would be necessary to call for and consider any objections, and the local Government might find it necessary to alter the provisional opinion now given.

IX.—HOURS.

A.—FACTORIES.

A statement showing the hours of employment, intervals, etc., in the main classes of factories as compiled by the Chief Inspector of Factories is given below :—

Statement showing Hours of Employment, intervals, etc.

Industry.	Men.		Women.		Children.		Days worked per week.	Rest intervals.	Remarks.
	Hours worked per		Hours worked per		Hours worked per				
	Week.	Day.	Week.	Day.	Week.	Day.			
Iron and steel factories.	Shift workers								Fortnightly holiday for shift workers and weekly holiday for non-shift workers.
	52	8	52	8	—	—	7	—	
Engineering workshops (general).	Non-shift workers								Weekly holiday.
	52	10	—	—	—	—	6	—	
Copper smelting factories.	48	8	48	8	—	—	6	1 to 2 hours	
	52	8	52	8	—	—	7	—	
Mica factories..									Non-shift workers are allowed 1 hour's rest from 12 to 1. Weekly holiday for non-shift workers and fortnightly for shift workers. 12.30 to 1.30 p.m. or 12 to 2 p.m. Saturdays observed as holidays.
	48	8	48	8	36	6	6	1 to 2 hours	
Railway workshops.	45	8	45	8	—	—	6	1 hour	
Sugar factories	Shift workers								One day holiday after every 3 weeks.
	56 to 60	8	—	—	—	—	7	1 hour	
Rice mills ..	Non-shift workers								Weekly holiday.
	60	10	—	—	—	—	6	No	
Oil mills ..	60	10	54	9	—	—	6	1 hour	Weekly holiday.
Tobacco factories	60	10	48	8	—	—	6	1 hour	Weekly holiday.
Shellac factories	54	9	54	9	36	6	6	1 hour	Weekly holiday.
Coke manufacture.	42	7	36	6	—	—	6	1 hour	Weekly holiday.
	56	8	56	8	—	—	7	1 hour	Non-shift workers are allowed 2½ hours' rest from 11.30 to 2 o'clock. Weekly holiday for non-shift workers and fortnightly holiday for shift workers.
Indigo factories	42 to 48	6	—	—	—	—	—	No	A holiday after 14 days.
Cement manufacture.	48	8	48	8	36	6	7	No	Non-shift workers allowed 2½ hours' rest from 11.30 to 2 o'clock. Weekly holiday for non-shift workers and fortnightly holiday for shift workers.
Leather manufacture.	48	8	36	6	—	—	6	1 hour	
Jute spinning and weaving.	54	11 hours for 4 days and 10 hours on Friday.	54	11 hours for 4 days and 10 hours on Friday.	—	—	5	2½ hours	

55. Hours Worked per Week and per Day.

(i) *Normal*.—Certain reports have been received from factories and they are given below :—

Iron and Steel Works.

Messrs. Tata Iron and Steel Company.—Their labour is divided into three classes—

(a) skilled, (b) semi-skilled and unskilled, (c) supervisory.

Classes (a) and (b), numbering approximately 5,000 and 17,500, respectively, work 8 hours a day. In the case of non-continuous process departments they work

6 days in the week, Sunday or a substitute day being an offday. In the continuous process department these men work 7 days in one week and 6 days in the next alternatively.

Class (c) and the clerical staff numbering approximately 1,800 work from 48 to 52 hours per week according to the need of their work.

The general shift hours are 7 a.m. to 11.30 a.m. and 1.30 p.m. to 5 p.m.

Other Factories at Jamshedpur.

Indian Cable Company.—Monday to Friday, 6.45 a.m. to 11.30 a.m. and 1 p.m. to 5 p.m.; Saturday, 6.15 a.m. to 11 a.m. Total weekly hours 48.

The Tin Plate Company work as a continuous process based on three 8-hour shifts a day.

Talanagar Foundry.—Eight hours a day and 48 hours a week wherever work is not given on contract. In contracted work workers are never found to work more than 8 hours; often they work for less than 8 hours.

Tobacco Factories.

Peninsular Tobacco Company.—From 1st October to 31st March the normal factory working hours are from 7 a.m. to 5 p.m. on Mondays to Fridays, with an hour's interval at midday. On Saturday the factory closes at 12 noon. The normal factory hours during the cold weather are 50 hours per week.

During the hot weather period, i.e., 1st April to 30th September, from Mondays to Fridays, the normal factory working hours are from 6.30 a.m. to 3.30 p.m., with an hour's interval from 11.30 a.m. to 12.30 p.m. On Saturdays the factory closes at 11.30 a.m. The normal working hours of this factory are 45 hours per week during the hot weather period.

Indian Leaf Tobacco Development Company's Factories.—January: 7 a.m. to noon and 1.30 p.m. to 5.30 p.m. May: 6.30 a.m. to noon and 2 p.m. to 5.30 p.m.

Sugar Factories.

New Siwan Sugar Company.—Eight hours per day (shifts), 10 hours per day (daily works).

Cawnpore Sugar Works.—Eight hours per day (shifts), 9½ hours per day (non-shift).

Siwan Desi Sugar Company.—6.30 a.m. to 12 p.m. and 1 p.m. to 5.30 p.m. in January. 6 a.m. to 12 p.m. and 2 p.m. to 6 p.m. in mid-May.

Barachakia Sugar Factory.—January, 8 hours; May, 9½ hours.

Purua Sugar Factory.—January, 8 hours; May, 9½ hours.

Rayam Sugar Company.—Shift men, 8 hours with half an hour interval; others from 6 a.m. to noon and from 2 p.m. to 6 p.m.

Samastipur Sugar Company.—56 hours per week (shift workers); 60 hours per week day workers).

Oil Mills.

Aryan Mills, Dinapore, Dinapore Rice Mill, Sri Das Rice and Oil Mills.—60 hours per week and 10 hours per day.

Shree Bihariji Mills at Patna City.—Workshop men work 9 hours a day and other men 10 hours.

Biswanath Rice Mill.—7 a.m. to 12 p.m., 12 p.m. to 5 p.m. in winter, 12 p.m. to 6 p.m. in summer for males; 8 a.m. to 2 p.m. and 3 p.m. to 5 p.m. for females.

Jaleswar Rice Mill: Balasore District—

A group.—Machine and Chattan coolies—7 a.m. to 12 a.m. and 2 p.m. to 7 p.m.

B group.—Machine and Chattan coolies—12 noon to 14 hours and 4 p.m. to 7 p.m.

C group.—Boiling coolies—5 a.m. to 10 a.m. and 3 p.m. to 7 p.m.

Murlidhar Gopi Singh Rice Mill (Balasore District).—6.30 a.m. to 12 p.m. and 2 p.m. to 6.30 p.m.

Utkal Rice Mill (Balasore District).—6.45 a.m. to 8 a.m. and 9 a.m. to 12 noon, and 3 p.m. to 6 p.m.

Engineering Companies.

Saran Engineering Company.—9½ hours, from 6 a.m. to 12 p.m. and 2 p.m. to 5.30 p.m.

Arthur Butler and Company.—7 a.m. to 12 p.m. and 1 p.m. to 5.30 p.m.

Mica Finishing Factory at Dhomchanch.—7.30 a.m. to 12 p.m. and 2 p.m. to 5.30 p.m. for those residing close at hand; 8.30 a.m. to 12.30 p.m. and 1.30 p.m. to 5.30 p.m. for those residing further off. Boys 9 a.m. to 12 noon and 2 p.m. to 5 p.m.

In some of the oil mills there is still a practice of working alternately in periods of 6 hours throughout the 24 hours, though in other of the oil mills the legal hours are worked. The representatives of the oil mills filed an application before the local Government asking for exemption from the provisions of the Factories Act so as to admit of working the mills continuously for 24 hours, dividing the period into four equal parts by two shifts, the men working 6 hours alternately. After detailed examination of the subject, the local Government formed the opinion that such exemption was unnecessary and have only granted exemption to the oil mills from Section 21 of the Factories Act, i.e., from provisions relating to rest periods. In coming to this decision the local Government formed the opinion that the process of crushing oil was not a continuous one because the process was not one which could not be shut down at regular daily intervals without causing a disproportionate loss in the efficiency and working of the factory. The only particular loss is that there is some wastage in stopping *ghanis* before the oil is fully pressed from the seed and to avoid that loss the mills have been exempted from the daily rest intervals during which the machinery would have to be stopped. The local Government also held that the work of employees in oil mills is not intermittent as the worker has to be present throughout to attend the machine as required, and therefore held that there was no justification for exemption from the prescribed weekly holiday. They also pointed out that approximately 50 per cent. of the mills in the southern circle already comply with the law and work for only 11 hours a day or else on three-shift system.

(ii) *Actual, i.e., including overtime.*—Some reports have been received from factories:—

Messrs. Tata Iron and Steel Company report that the actual average number of hours, inclusive of overtime, worked in a week is about 51 to 52 hours.

Indian Cable Company report that during the past year the average hours of work per week by various classes of labour were:—

Skilled, male	50 hours per week.
Unskilled, male	50 ditto.
Unskilled, female	48 ditto.

In the Tin Plate Company 40 or 48 hours' work a week is done according as the plant works 5 or 6 days. Overtime is worked only when absolutely necessary, by such as millwrights or electrical or mechanical repair gangs.

Peninsular Tobacco Company report that overtime is worked and paid for at $1\frac{1}{4}$ times the usual rates. The company states that the maximum number of hours worked overtime in any one day by any one individual was one hour, except on Saturdays. On Saturdays the company only works for half a day, for which the employees receive the full day's wage. Sometimes employees are required to work overtime on Saturday afternoon up to a maximum of four hours, for which they are paid at $1\frac{1}{4}$ times the usual rates. The average overtime would work out at half an hour per employee per month.

Sugar Factories.—Overtime has been worked in some factories in the past and paid for at 25 per cent. over normal rates for 60 to 66 hours, 50 per cent. over normal rates for 66 to 76 hours, and double normal rates for over 76. As, however, no process in these factories is any longer exempted from section 27, overtime will now not be possible to the same extent, though there is still likely to be some overtime in connection with urgent repair work or because of men failing to turn up on their shift.

The following instances of overtime worked in sugar factories have been given:—(a) *Siwan Desi Sugar Company.*—From June, 1928, to June, 1929, 391 days' overtime were worked at an average of 1.91 hour per day. (b) *Barachakia Sugar Factory.*—During a month of crushing, 62 persons worked overtime. Of these, five persons worked overtime for seven days, totalling $35\frac{1}{2}$ hours; five persons worked overtime for four days, totalling $25\frac{1}{2}$ hours; and the maximum overtime worked on any one day by any one individual was $2\frac{1}{2}$ hours, and the average approximately $1\frac{1}{2}$ to $1\frac{1}{4}$ hours. (c) *Ryam Sugar Company.*—In January, 33 men worked overtime for a total of 128 days. The maximum overtime worked by any one individual on any one day was eight hours, and the average was one hour per day per individual. (d) *Samastipur Sugar Company.*—During crushing season, 25 men worked overtime for approximately 24 days. The average number of hours worked overtime was two per day.

Rice Mills—(a) *Jaleshwar Rice Mill, Balasore.*—Overtime is worked and paid for at the usual rate of daily wages. It is worked generally for about five days each in the months of *Chaitra*, *Baisakh*, *Jestha* and *Asarh*. The maximum number of hours worked overtime by any one individual in a day is three hours. (b) *Mission Rice Mill, Balasore.*—Overtime is worked at about double the usual rates, and the maximum number of hours worked overtime by any one individual in a day is three hours, the average being about $1\frac{1}{2}$ hours a day.

56. Days worked per Week.

(a) Information as furnished by the Chief Inspector of Factories is given in the statement above.

(b) The attendance of workers on all days of work during the week, particularly in the case of unskilled workers, is not by any means regular. To encourage regularity among their weekly rated labour, Messrs. Tata's Iron and Steel Company give a bonus of two days' pay to those who work 27 days out of a possible 28, and of one day's pay to those who work 26 days out of a possible 28, and it is reported that 80 per cent. of their weekly rated labour obtains this bonus. This percentage is, however, probably higher than that in other factories.

(c) The following figures for the Mica Finishing Factory, at Domchanch, show the number of workers who worked various numbers of days in two weeks, taken at random :—

	6 days.	5 days.	4 days.	3 days.	2 days.	1 day.
17th–23rd April ..	46	16	16	17	14	11
17th–23rd July ..	81	16	11	5	4	2

It is probable that the greater regularity in July was due to a desire to collect money for purchase of or payment for seed for sowing.

57. Effect of 60 Hours' Restriction.

(i) *On workers.*—Messrs. Tata Iron and Steel Company consider that the effect of the 60 hours' restriction has been beneficial to the workmen. There has perhaps been a slight loss in earnings, inasmuch as overtime cannot be put in to the same extent, but against this there is less fatigue, which results in better health and efficiency.

(ii) *On industry.*—Indian Cable Company consider that the restriction causes some inconvenience in connection with maintenance and repair work which might otherwise be accomplished over the week-end.

The Peninsular Tobacco Company, though their weekly hours of work are considerably below the legal maximum, suggest that a little latitude might be allowed to permit of slightly longer hours in occasional short periods of stress.

58. Effect of Daily Limit.

Messrs. Tata Iron and Steel Company consider that this has generally had a beneficial effect on the workmen.

59. Possibility of Reduction in Maxima.

The local Government have at present insufficient information on which to furnish an opinion.

60. Intervals.

Except in the exempted industries, this provision is now generally observed. Generally, the rest interval is allowed at midday from 12 to 1 o'clock, but in some instances a longer period than one hour is allowed. From the figures given in answer to question (55) (i) above, it will be seen that in some factories a longer interval at midday is given in the hot weather. Thus the Indian Cable Company give 1½ hours at midday, increased to 2 hours in hot weather by moving the morning period 30 minutes earlier.

(i) *Existing practice :* (a) *In relation to fatigue.*—The climatic conditions during a considerable part of the year produce quicker and greater fatigue of body than in countries where the conditions are temperate. Six hours, therefore, is the maximum limit of time during which a workman can work continuously without producing undue fatigue, but in continuous processes the limit has to be extended to 8 hours, but the workman has opportunities to consume light refreshment, if he so desires.

Messrs. Tata Iron and Steel Company report that in the various continuous production departments their men are employed on 8-hour shifts. There are no jobs requiring continuous work for which spare hands are not provided to relieve workmen so as to prevent fatigue and while many of the men engaged in 8-hour shift are employed on work in which the process is continuous, the actual work itself is intermittent and men in consequence get intervals for meals and rest. In the Tin Plate Company also it is reported that sufficient staff is carried to permit spellhands.

(b) *In relation to workers' meal time.*—The midday interval is the usual meal time and the interval is availed of for this purpose. In rural centres, save in large central factories, such as sugar factories, little or no housing accommodation is provided, and as the workman in many instances has to cover 2 or 3 miles to get home, he prefers to stay at the factory and consume uncooked cereals or other food-stuffs and go home at the end of the day. Even in larger establishments the housing accommodation is limited and in most cases unsuitable for keeping families, and similar conditions hold good for at least 60 per cent. of the employees. The conditions in urban areas or large industrial centres are slightly different, but here also a good proportion of the workmen has no other alternative.

The hours of work at the Mica Finishing Factory, at Domchanch, are noteworthy, and it will be seen that the hours of work are adjusted so as to allow of the two different types of labour being given an interval suitable for their particular needs as regard meal time.

(ii) The law is generally suitable. The officiating Chief Inspector of Factories has suggested that during the hot weather months the limit of work without a period of rest should be reduced to five hours, except in the continuous processes. He considers that this reduction of the continuous working period is likely to check the tendency of the workman to snatch periods of five to ten minutes off during the work period. The local Government have not invited the opinions of industrial concerns on this suggestion, but there seems to be considerable force in the suggestion and it appears to be worthy of examination.

(iii) *Suitability of the hours during which factory is working.*—Generally the hours of working are satisfactory and the tendency to grant a longer rest period at midday in the hot weather, where possible, is commendable.

61. Day of Rest.

(i) Except in the exempted industries, a weekly day of rest is now generally observed. The case of the oil mills has been noted above in answer to question (55). It must, however, be admitted that there is a greater tendency to violate this provision of the Act than any other, and it is objected to largely by the employer on the ground of decreased output, enforced idleness of the plant, inability to arrange for workers for a single day only, while the workman complains of the enforced deduction from his wages.

(ii) *Suitability of the law.*—(a) Messrs. Tata Iron and Steel Company report that the general effect has been a protest from the daily rated workmen against losing pay for these days of rest, but the day of rest from a health point of view must be materially to the advantage of the worker.

(b) There is little doubt that there is a fairly general complaint by the workman against the enforced deduction from his wages. In the case of unskilled labour wages are generally based either on a daily wage rate or on a piece rate, and it is difficult to see how this can be altered as long as unskilled labour is so irregular in its attendance during the week. The day of rest is, however, imperative from the point of view of health, even though a considerable amount of the unskilled labour does not work continuously throughout the remaining six days. The regulations, therefore, are suitable.

62. Exempting Provisions and use made of them.

The exemptions at present allowed by the Government of Bihar and Orissa are grouped in five classes and are detailed in the notifications dated the 11th March, 1919, annexed. (Not printed.)

Class (I) deals with exemptions granted to individual factory processes. The exemptions and notifications are self-explanatory. Exemption XVI is a new exemption which has been found necessary, because wherever a three-shift system is in force it is necessary to change the worker periodically from one shift to another in order that the same man shall not be continuously on night duty. Such changes are usually made twice a month and the process involves making the employee work two shifts in the course of twenty-four hours. It also happens occasionally that a shift man fails to turn up on duty, and therefore a shift man has to be on duty for two shifts running. This, however, is only of rare occurrence.

Class (II) deals with exemptions relating to motive power. In this section a considerable change has been made from the exemptions previously in force, in that exemptions previously granted in favour of ordinary maintenance, adjustment and repair work have been entirely withdrawn and exemption is confined solely to attendance upon and operation of motive power. For the purpose of this exemption factories have been divided into two classes—continuous and non-continuous process factories. In the case of continuous factories, the engine room and boiler staff are exempted from sections 21 and 22 to the same extent as the continuous process departments. In non-continuous process factories a new principle has been introduced, and exemptions are graded according to the size of the plant and the number of men required to operate it. This province contains a number of small factories in which the engines are under-staffed or run by men who are not fit to be trusted with machinery. It has, therefore, been provided in the first instance that no exemptions will be given if a competent man is not in charge of the motive power. Secondly, if the grate area of the boiler is more than 20 square feet no exemption is allowed unless two or more men are employed and the staff is sufficient to allow one man to be employed solely as watchkeeper or supervisor. The observation of these conditions makes it possible to be fairly generous in allowing exemptions and,

accordingly, the Local Government have allowed exemptions from Sections 21, 22, 27 and 28 in the case of one-man plant since that exemption is limited to the smallest type of factory which cannot work without liberal exemptions, and have allowed exemption from Sections 21, 22 and 27 in the case of the bigger factories under stringent limitations, which provide for sufficient staff for a period of daily rest, for a partial rest day every week, and a full day's holiday every four weeks.

Class (III) deals with exemptions given in favour of urgent repair work. As all exemptions have been withdrawn in the case of ordinary repair and maintenance work, the Local Government have decided to grant exemptions under this clause, not only in cases where delay would involve increased danger to human life or safety but also where delay would result in the stoppage of the factory. Every exemption thus exercised must, however, be reported to the Inspector of Factories.

Class (IV) deals with exemptions granted to tea, coffee and indigo factories and is self-explanatory.

Class (V) deals with exemptions relating to exceptional pressure of work and is self-explanatory.

62A. Use by Local Government of Section 2 (3) (b).

(i) The only notification issued by the Local Government under Section 2 (3) (b) is notification No. 2111 of the 9th July, 1924, in which it was declared that all premises wherein on any one day in the year not less than ten persons are simultaneously employed and in which power-driven saws are used should be factories for the purposes of the Factories Act.

(ii) In 1927-28 an investigation was made as to the advisability of extending the provisions of the Factory Act to certain small factories, in which the work of cutting, splitting and dressing mica is carried out. In only one of such factories is mechanical power employed (the factory of Messrs. F. F. Christien and Company at Domchanch) and that is registered. It was found that the number of persons employed in these factories was about 6,000, while possibly 10,000 persons are employed at home in splitting mica—regarding this home industry the Chief Inspector of Mines writes: "Again many firms have established a kind of home industry in mica splitting. Mica is given out from the central factories at Kodarma to contractors who take the mica to the different villages where it may be split by one or several members of a family. I had no opportunity of seeing this class of work being done, but I was informed that parents and children alike indulge in this work in order to earn extra money. The finished mica is returned to the central factory by the contractor, who is paid on results. I understand that a certain amount of the mica given out goes astray, but the amount is said to be negligible. At Giridih Messrs. F. F. Christien and Company give work to 400 persons living in Giridih and the surrounding villages. At Tisri the same firm gives out work to 4,000 persons, also living in outlying villages."

On an enquiry made from Chief Inspector of Factories it was found that excessive hours were not worked in these unregistered establishments, and that other conditions were not seriously contrary to the provisions of the Act except possibly in the matter of the space allowed per employee in the buildings. The Local Government decided that if the establishments were brought under the Factories Act, this would be bound to lead to increase in the home work and consequent increase in the amount of theft of mica, which was undesirable, and that, therefore, in view of the report of the Chief Inspector of Factories, it was unnecessary to extend the provisions of the Factory Act to these establishments.

B.—MINES.

63. Hours Worked per Day and per Week.

(i) *Normal, i.e., as determined by custom or agreement.*—(a) *Coal mines.*—Generally the normal number of hours worked per day varies from 8 to 12 hours. Except at a few mines there are no arrangements by custom or agreement to work a specified number of hours underground. Lodna colliery is the principal exception in the Jharia coalfields. At this colliery a system of shifts, two shifts per day with an interval of two hours between shifts, has been in operation for over a year. The difficulties encountered in introducing the system were not great, and as the management made arrangements for full tubs to be raised from the mine and empty tubs to be ready for the ingoing shift during the two hours' interval between the shifts, the miners quickly realized the benefit of the system and now they prefer the shift system to their old methods. It may, however, be noted that in this colliery machine drills are used, and a large proportion of the miners are Bilaspuris and men recruited from the United Provinces. Also as the colliery is an old established one a larger proportion of the labour (estimated by the manager at 65 per cent.) is settled than in the case of newer and smaller collieries.

(b) *Iron Mines.—Bengal Iron Mines.*—The normal hours of work are 8 hours per day.

(c) *Mica Mines.*—The normal hours of work are 8 hours—the work of the mine being divided into two shifts of 8 hours.

(ii) *Actual, i.e., including overtime.—Coal mines.*—(a) The actual hours so worked per week at a large representative mine in each important mining field in the province during the year ending 31st December, 1926, is given at page 4 of the Report of the Chief Inspector of Mines for that year.

(b) Enquiries were made from various collieries as to the number of hours during which the miner worked underground in a day. The figures received do not lend themselves to tabulation, but the collieries' reports are given below.

Loyabad.—Out of 682 days' work done in the week ending 20th July, 1929 :—

26 days	were between 10 to 11 hours.
336 "	" " " 9 to 10 "
310 "	" " " 8 to 9 "
13 days	were under 8 hours.

Bhuggutdih.—All miners work less than 8 hours.

Eastern Coal Company, Bhowra Colliery.—Miners do not work for more than 9 hours daily, and in many cases work much shorter hours.

Central Kirkend.—Miners work between 8 and 9 hours.

Standard Colliery.—Occasionally on Saturdays or before the Pujas the miner works between 9 and 11 hours; he generally works between 8—9 hours, but about 30 per cent. work less than 8 hours on the first day of the week.

If the approximate average of these figures are multiplied by the average number of days worked per week, it will be seen that they support the Chief Inspector of Mines' figure of 37 hours for a week—work by a miner.

These figures do not, however, give the actual number of hours worked by the miner, as during the period that he is below ground the miner whether as a result of lack of tubs, lack of loaders, or lack of inclination, does not work regularly. During the week a miner may be underground from 30 to 54 hours, during which time his hours of actual work probably vary between 18 or even less to 30 hours. An examination of the raising figures for any pit will show that on the same day one miner will raise one tub whereas another miner may raise 4 or 5 tubs. This is probably not to any great extent due to difference of conditions under which the miners are working but largely to difference in inclination.

(c) Other labour, such as winding engineman, bank's man, fireman, etc., may be considered at work during the whole period of their duty. Their work, however, is intermittent.

In Lodna colliery in an incline for week ending 24th March, 1929, the following classes are shown as working eight hours—trolleyman, hookmen, firemen, propping coolies, line mistris, shakpickers, while engine khalasis are shown as working 10 hours.

Iron Mines.—In the Bengal iron mines the actual hours of work are :—

Skilled labour	..	..	..	9 hours.
Unskilled labour	..	..	..	8 "

Mica Mines.—Though the shift is an eight hours' shift it is reported that actually the miner works only about five hours. He comes late, and spends some time in getting his tools. In some mines blasting takes place during the shift, and the mine is cleared for at least half an hour at each blasting, of which there may be two within a shift. In other mines blasting takes place between shifts.

64. Days Worked per Week.

Coal Mines.—(a) The over-man, pump khalasis, enginemen and other skilled staff as a general rule work six days per week. These persons are on weekly or monthly pay.

(b) *Miners.*—The miner works only as many days as he feels inclined. He is generally paid on Sunday and the mine is closed on Sunday. The great majority of miners will not work on Monday also. In the case of some mines an extra rate per ton is given for raisings on Monday. Thus, at Bhagatdih colliery an anna per tub extra is paid for raisings on Monday, but it is not very effective. Originally it was intended that this one anna should only be paid provided the miner worked six days, but in practice it is paid for every tub raised on Monday. Similarly, at Balihari one pice per tub is paid for raisings on Monday, and probably if an inquiry was made from a number of collieries the same practice will be found. The figures for No. 8 pit at Loyabad given in answer to question No. 2 show that the average days worked in a week by miners from all districts in that pit was 3.50 for the period 26th July, 1928, to 11th January, 1929, and 3.94 for the period 12th January, 1929, to 29th June, 1929. The statement below will show the number of days worked per week in certain pits and inclines as well as certain other information.

Name of colliery.	Week ending.	Number of different workers.	Total number of days worked.	Number of miners working—						Average number of tubs raised per day's work.	Total wages earned.	Highest wages earned per week.	Average wages earned per day (i.e., by miner and loader).
				6 days.	5 days.	4 days.	3 days.	2 days.	1 day.				
Bhugatdih Colliery :— (a) No. 4A incline (b) No. 2 Pit (c) No. of pit not given ..	23rd February, 1929..	56	261	12	27	10	2	3	2	4.6	Rs. 319 12 0	Rs. 11 9 6	Rs. 1 3 3
	20th July, 1929 ..	53	225	11	20	10	6	—	1	4.2	285 8 0	10 4 0	1 4 3
	22nd June, 1929 ..	14	40	2	2	2	1	6	3	2.8	34 9 0	5 11 0	0 13 9
	February (?) ..	124	615	44	48	21	6	4	1	4.9	815 0 0	—	1 5 3
	July (?) ..	111	434	15	27	30	22	4	11	3.9	527 2 0	—	1 3 6
Baliahari Colliery :— No. 6 Pit No. 6 Pit East Indian Coal Company :— Barraee Colliery ..	September (?) ..	109	527	30	43	29	4	1	2	4.8	647 15 0	—	1 3 6
	10th February, 1929..	74	360	16	42	10	4	—	2	4.8	376 4 0	12 4 0	1 0 9
	6th July, 1929 ..	60	242	—	23	23	7	7	—	4.0	308 14 0	10 8 0	1 4 6
	21st July, 1929 ..	12	39	—	5	1	1	2	3	3.2	45 9 9	9 15 3	1 3 0
	November, 1928 ..	50	210	7	17	15	4	4	3	4.2	129 1 9	—	0 10 0†
Eastern Coal Company :— Bhowra Colliery ..	February, 1929 ..	122	464	2	25	61	23	3	8	3.8	301 0 11	—	0 10 6†
	July, 1929 ..	78	339	11	31	20	11	0	5	4.4	238 4 6	—	0 11 0†
	February, 1928 ..	116	469	18	20	40	25	13	0	4.0	407 8 0	—	0 13 10
	July, 1928 ..	63	259	3	31	11	6	12	0	4.1	305 9 0	—	1 2 10
	September, 1928 ..	96	418	12	36	29	12	7	0	4.5	375 12 0	—	0 14 4
Central Kirkend Colliery Lodna Colliery ..	September, 1928 ..	255	1,205	89	85	40	18	9	14	4.7	1,261 0 0	—	1 0 8
	February, 1929 ..	297	1,353	124	86	58	26	16	17	4.6	1,595 0 0	—	1 2 2
	February (?) ..	84	416	20	46	15	—	3	—	4.2*	610 9 3	—	1 7 2
	July (?) ..	74	325	—	17	17	5	2	3	4.4	411 4 9	—	1 4 9
	September (?) ..	122	516	—	60	40	12	10	—	4.1*	671 13 0	—	1 4 3
Central Jeonagara Colliery	February, 1928 ..	74	300	—	31	24	15	—	4	4.05	360 0 0	—	1 3 6
	July, 1928 ..	65	263	—	26	28	5	—	6	2.84	321 0 0	—	1 3 6
	September, 1928 ..	86	382	—	42	24	13	—	7	2.57	386 0 0	—	1 1 6
	February, 1928 ..	197	699	3	58	53	30	21	27	3.55	784 0 0	—	1 1 9
	July, 1928 ..	63	243	—	19	24	14	4	2	3.86	290 0 0	—	1 3 3
..	(1 shift)	115	450	—	50	30	19	7	9	3.91	411 0 0	—	0 14 6
	1 (shift)	2,470	11,054	419	917	668	291	140	130				

* This colliery is worked by blasters as well as pick workers.

† This wage probably represents the wage of the miner only and does not include the loader's wages.

This statement shows that taking the figures for all collieries together the average number of days worked per week by a miner is just less than $4\frac{1}{2}$, that—

37.12	per cent. of miners worked	5 days in a week.	
27.04	"	"	4
16.96	"	"	6
11.78	"	"	3
5.66	"	"	2
5.26	"	"	1

The figures have been taken more or less at random and may represent a fairly accurate average.

Mica Mines.—The average daily cooly is stated to work 4 to 5 days. The figures for two fortnights in June each having 13 working days for one shift of 21 coolies at Kunjia gave the following attendances :—

	Number of coolies working :										
	11 days.	10 days.	9 days.	8 days.	7 days.	6 days.	5 days.	4 days.	3 days.	2 days.	1 day.
13 working days ending 15th June.	3	0	1	2	1	8	0	1	0	4	1
13 working days ending 30th June.	1	1	0	1	1	2	2	0	3	6	4

which only gives an average of approximately 5 days' work out of a possible 13, but in the latter week probably a number of coolies were absent in preparation for agricultural sowings.

65. Effect of 60 Hours' Restriction.

The 60-hour restriction only applies to surface workers, and underground the workers are restricted to 54 hours per week. The effect of these restrictions may be summarized thus :—

(a) There has been a reduction in the number of hours in which a miner remains underground. The miner now generally remains underground from 8 to 10 hours daily.

(b) The supervising staff, attendants, etc., now have a rest day because the mines are closed for one day per week. Formerly they had to work seven days because a portion of the miners would work every day in the week. This also leads to economical working of the mine. There has been no adverse effect on output. In 1923 the output per person employed in coal mines was 103 tons; in 1928 it has risen to 131 tons. In this connection reference should be made to answer to question 114.

(c) The Indian Mining Federation, however, report that some additional skilled hands (such as pump *khalasis*, boiler *khalasis*) had to be entertained, and it is possible that, as the number of hours is limited to 54 and not 56 for such labour, this has been necessary, as it is not easy conveniently to arrange for changes of shift of such workers within the limits of a 54-hour week. The Indian Mining Association reports that there has been little perceptible difference, but the tendency would be in the direction of an increase in the number of persons employed at a relative increase in cost per ton raised, but no reasons are given in support of this.

66. Possibility of Reducing Maxima.

It is not advisable at present until further experience has been obtained to reduce maxima, nor does such reduction appear to be necessary in view of the habits of work of the miner.

67. Suitability of the Law Relating to Shifts.

1. In so far as resident labour is concerned the law relating to shifts is suitable. In the Giridih and Bokharo collieries practically all the labour is resident and the introduction of the two-shift system will not present much difficulty in the Jharia coalfields. There is a fairly large percentage of resident labour, and most of the labour does not come from any great distance. The shift system will eventually prove a great boon to the mining industry. Many companies would have introduced the system without legislation if they could have done so without running the risk of losing their miners. The shift system will result in better organization and

better supervision, and accidents due to persons travelling on haulage roads when coal raising is in progress will diminish. There will be difficulty in getting outside labour to conform to the shift system, especially those who travel some distances to their work. Thus, the Indian Mining Federation reports that miners who are not resident in the mines but come to work in the pits from their village homes in the vicinity of the coalfields cannot put in regular attendance. They desire to make up their late attendance by staying in the mine longer after the closure of the shift and it is with difficulty that they can be persuaded to suspend duty.

2. It is the opinion of the local Government somewhat difficult to apply the law relating to shifts to those who are engaged on preparatory or complementary operations, for instance, in connection with engines, boilers, machinery, workshops, urgent repairs, or in the transport and carting of coal or the loading of wagons, and in operations connected with transport and dependent primarily on the time at which wagons become available. The hours at which the workers are to attend must, therefore, be regulated largely by this factor. A strict enforcement of the law would entail the maintenance of a double shift of transport workers which would probably be idle for a large part of the time and would, therefore, be unnecessarily expensive. It may further be desirable to grant some exemptions at first to smaller mines which cannot afford the introduction of the shift system. In the opinion of the local Government, therefore, at any rate at first, exemptions should be granted under Section 46 of the Act to cover these cases.

68. Possibility of Introducing an Effective Daily Limitation.

The law relating to shifts will limit the hours to 12. Until the law has been firmly established and operated for a number of years, it is inadvisable to introduce further legislation. The difficulty in operating the shift system will be to get the miner to go down at the beginning of his shift, and it is therefore advisable not to reduce the legitimate number of hours worked, as otherwise if the miner does not go down at the beginning of his shift his hours of work will be seriously curtailed. The introduction of fresh legislation with respect to hours of work would at present probably result in reduction in output, and until the miner used to working more regularly for the hours that he is below ground any further restriction in hours would probably result in a reduction in his weekly earnings, and might result in his seeking occupation elsewhere.

69. Intervals.

(i) *In relation to fatigue.*—(a) *Miners.*—The miner works as he wishes, and is a leisurely individual and takes his intervals when he likes. He rests after going down the pit, when he reaches the surface, between filling up tubs and after he has filled his tub and before returning to surface. He does not become unduly fatigued.

(b) *Pump khalasis and other skilled labour below ground and workers above ground.*—The hours of work are generally during the hot weather from 6.30 a.m. to 11.30 a.m. and from 2.30 p.m. to 6 p.m. and during the cold weather from 7 a.m. to 12 a.m. and 2 p.m. to 5.30 p.m. The intervals are suitable. Surface workers employed on loading of wagons, etc., work as wagons become available, and their work is therefore intermittent, and no defined intervals are required.

(ii) *In relation to workers' meal times.*—It is unusual for an Indian miner to take his meal below ground. In the open workings there is usually an interval of about two hours, during the heat of the day, when meals can be taken. Surface workers can also take their meal during the midday interval.

70. Day of Rest.

Usually Sunday is recognized as a day of rest and, as pointed out above, the miner also, to a large extent, takes Monday. He takes holidays for all his festivals, and as he is under no contract he leaves the colliery when he likes.

71. Adequacy of Existing Provisions.

With the passing of the Indian Mines (Amendment) Act, 1928, the existing provisions are at present adequate. After the 12 hours' shift has been in operation for some years and labour has become used to working in shifts, the question of reducing the number of hours per shift might be reviewed.

72. Exempting Provisions and use made of them.

The exemptions under Section 46 (1) of the Mines Act are published in notifications No. M-1051, dated the 23rd December, 1926, and No. M-1051, dated the 23rd November, 1927, issued by the Government of India in the Department of Industries and Labour.

The exemptions peculiar to this province include certain coke factories in the Manbhum and Hazaribagh districts, certain open excavations for coal in the Santal Parganas and certain iron-ore mines worked without mechanical power. In the case of the latter two classes (which are new exemptions) the local Government agreed with the suggestion of the Chief Inspector of Mines (received with letter No. M-1051, dated the 20th January, 1927, from the Government of India in the Department of Industries and Labour) that these classes of mines should be exempted.

Although section 25 of the Indian Mines Act empowers a manager in certain emergent circumstances to employ persons in excess of 54 hours underground or 60 hours on the surface, few emergencies have arisen when advantage has been taken of this provision as only the number of hours per week are restricted. When the hours of work per day are restricted there will probably be more occasions when advantage will be taken of the exempting provisions.

X.—SPECIAL QUESTIONS RELATING TO WOMEN, YOUNG ADULTS AND CHILDREN.

A.—FACTORIES.

81. Effect of 1922 Act on Employment

(a) The figures given below show the average daily number of employees in registered factories under the three classes—total, women and children :—

Year.	Total.	Women.	Children.
1922	68,752	9,977	1,951
1923	67,951	7,162	2,295
1924	70,015	6,234	1,821
1925	73,641	6,660	983
1926	74,323	6,610	1,116
1927	71,400	6,228	1,017
1928	68,100	5,682	934

From these figures it will appear that since 1922 the percentage of women to total employees in factories has dropped from 14·5 in 1922 to 8·3 in 1928, and the total number of children employed has dropped from 2·8 per cent. in 1922 to 1·4 per cent. in 1928.

(b) The drop is mainly due to the conditions imposed on the employment of women and children, as now that the hours of work of children have been limited to six it is not so profitable to employ them. It is also reported that owing to agricultural pressure on land more male labour is turning to factory work and replacing women and children. It costs about the same to employ one man as it costs to employ two children, and as male labour is more efficient, employers often prefer the male adult labourer.

(c) Messrs. Tata's Iron and Steel Company report that the passing of the Act made very little difference to the steel company. Prior to the passing of the Act the employment of women at night time had been stopped, and the company has not at any time encouraged the employment of children. Figures furnished by the Chief Inspector of Factories for the daily average number of women employed by this company show however a considerable reduction, as shown below :—

1923	4,949	1926	3,172
1924	3,474	1927	2,634
1925	3,753	1928	1,933

It may be noted that when the question of prohibiting the employment of women at night at Messrs. Tata Iron and Steel Company's works was under consideration in 1919, the company raised strong objections and stated that it will be difficult to replace the women working at night time at the coke ovens by male labour. As a result, however, of the prohibition of women labour by night it appears that such women labour has been replaced by male labour without any undue inconvenience.

82. Admission of Infants to Factories.

(a) A crèche is maintained by Messrs. Tata's ; this is situated where there is the greatest concentration of women workers, and it would not be convenient to change its location to near one of the entrances of the factory. The admission of infants to the factory for the purpose of being kept in this crèche is governed by the following rule framed by Chief Inspector of Factories :—

"The admission into the factory of the Tata Iron and Steel Company, Limited, at Jamshedpur of children whose age is less than 12 years other than infants in arms who are being taken to or from a crèche is hereby prohibited."

(b) The Peninsular Tobacco Company (Monghyr) report that women are allowed, in cases where they may desire, to bring their young children into the factory compound. A shelter is provided wherein such children may remain, and if able, play during factory hours. A woman attendant is provided who looks after the children and calls the parent in case of need.

(c) In the Tinsplate Company the admission of infants to the factory is strictly forbidden, but difficulty has been experienced in enforcing this rule, particularly in the case of women workers who are unable to leave their children at home. A rest shed has, therefore, been provided where women can leave their small infants. But older children get into works on occasions and have to be turned out.

83. Suitability of Regulations for Women's Work.

The local Government have no points to raise. The question of the employment of women before and after childbirth has been touched upon in answer to question (28)

85. Double Employment of Children.

So far as information is available, there is no reason to suppose that this takes place.

87. Extent of " Blind Alley " Employment.

So far as is known there is no " blind alley " employment. There are two classes of boys employed to whom the term might apply :—(a) Boys who used to go down the mines, carrying the lamps of managers and assistant managers. These boys used to have chances of training on into efficient sardars. They are still employed, though they now do not go down the mine; it is reported, however, that they obtain employment as chaprasis or if they decide, when of legal age to go down the mine are likely still to have a chance of becoming certificated sardars. (b) *Office boys*.—Messrs. Tata's Iron and Steel Company report that all office boys, as they grow up, are absorbed in various parts of the works establishment. Some of them who attend the night school become sufficiently educated to assist in the office, others go into the works, while some become chaprasis and peons. In smaller establishments office boys are probably similarly absorbed.

89. Work of Women and Children in Factories not Subject to Act.

(i) and (ii) The use made by the local Government of section 2 (3) (b) of the Act has already been referred to in answer to question (62-A).

In the mica splitting factories which are not subject to the Act and in which no mechanical power is employed, the conditions of work of women and children are suitable. The work is light, hours are not excessive, and factory conditions are generally healthy. It may perhaps be noted that educational facilities are not provided for children working in such factories, but even if they were provided they would probably not be utilised. In Messrs. Christien's mica splitting factory at Lokai (unregistered) there were on 23rd August, 1929, about 400 persons working of whom 69·36 per cent. were adults, 28·19 per cent. were boys, and 2·45 per cent. girls.

B.—MINES.

90. Effect of Act of 1923.

Suitability of certification provisions.—(a) It was argued by many that when children were taken out of the mine the women would not go down, but this argument is not found to have been correct. As far as any labour left the mine for this reason the amount was insignificant.

(b) The provisions for certification appear to be quite suitable but are rarely put into operation as managers have always, at the request of the inspectors, ceased to employ any child about whose age there may have been any doubt.

91. Exclusion of Women from Mines.

(i) The regulations are in accordance with the suggestions of the local Government, and the local Government have at present no reason to modify their opinion that these regulations are suitable.

Coal mines.—There is a difference in opinion between the Indian Mining Association and the Indian Mining Federation in the matter. The Association reports that the general consensus of opinion is that the regulations are suitable, but that they should be made applicable to open coal workings. The Federation, however, states that the regulations are unsuitable and are likely seriously to disturb working conditions in the mine.

Mica Mines.—The Kodarma Mica Mining Association reports that the regulations are not suitable to mica mines, and that it will be difficult to get sufficient male workers to replace women, and that the exclusion of women, if considered absolutely necessary, should be gradual rather than all at once. The general manager of the Chota Nagpur Mica Syndicate considers that the total exclusion on short notice was unfair to the industry, as no time was allowed for making the necessary arrangements.

(ii) *Probable effect on industry : Coal Mines.*—(a) Little, if any, effect will be apparent for 2 or 3 years, and the large mine owners will introduce new methods to counteract the exclusion of women as the reduction proceeds. Practically all women working below ground are employed as coal carriers, and in 50 per cent. of cases the coal could be loaded into the tub at the face. Miners will have to be taught to load their own coal at the face with a shovel and it will be necessary for the owners to lay tub tracks up to the face, thought there is likely to be some difficulty felt in working seams which are of steep gradient.

(b) In the well-equipped mines, recourse will be made to modern methods of loading coal by machinery and systems of working will be modified to meet the new conditions. At some mines the difficulty will be overcome by recruiting male coal carriers, and it is noticed that already in the mines there are a number of male coal carriers, e.g., Muhammadans from the Monghyr district. These Muhammadans work without their women, and though in some mines there may be no Muhammadans working, in other mines there may be a considerable number, amounting, as stated by one manager in exceptional circumstances, to 40 per cent. At Bhagatdih, the manager estimates that he has 20 per cent. Muhammadans from Monghyr working. It may be noted that in certain cases the Central Provinces and the United Provinces miner will load his own coal. Thus the manager of the Standard Colliery reports that if a Central Provinces or United Provinces miner was unable to obtain a loader for a longer period than one week, he would probably go back to the mine and load for himself in order to earn wages. He adds that in some bad places in the mine the women had been forbidden to work by the manager, and he had found it possible by inducement (which might consist of extra payments or of bringing the tubs near the face) to get the Central Provinces and United Provinces miners to load their own coal.

(c) If mechanical loaders are introduced and worked on a suitable system, there should be little, if any, material increase in the cost of production and the workers would be able to earn higher wages.

(d) In the case of owners who are unable to equip their collieries with machinery, there will be increased cost of production, as the miner will demand an increased rate to make up for the loss of his wife's earning.

(e) One mine manager reports that difficulty may be felt in keeping mines clear of slack (which will be a positive danger in respect of fire in depillaring areas) as the work of clearing slack is almost entirely done by women labour at present. He, however, anticipates that the difficulty will only be one of transition and will be overcome in due course.

Mica Mines.—Certain mine managers consider that exclusion of women will increase the cost of raising mica. Owing to the manner in which the mines are worked, it would be impossible to introduce improved methods of haulage, and, therefore, women labour would have to be replaced by male labour. Previously, women used to be paid 4 annas a day, while the wage of the male is approximately 8 annas a day. At present, however, it is stated that female labour is likely to be replaced by young adult labour which will be paid approximately 6 annas a day.

It is also stated by certain mine managers that the exclusion of women may cause difficulty in obtaining an adequate supply of male labour. Thus the General Manager of the Chota Nagpur Mica Syndicate refers to his figures of total employment in the Dharakola division in July, 1928, and July, 1929, as shown below :—

				Male.	Female.	Boys.
July, 1928	..	..	..	2,276	537	709
July, 1929	..	..	..	1,596	271	206

and he argues that the smaller amount of male labour available in July, 1929, was partly the result of the exclusion of women, as *pardesi* labour (i.e., labour coming from 14 or 15 miles away) may be unwilling to come to the mine because the earnings of the male member only are an insufficient attraction.

(iii) *Economic effect on workers : Coal Mines.*—At first there is bound to be a decrease in the amount earned by the family unless the women can find work on the surface. As there will be a surplus of women for this work the rates may decrease but the opposite will be the case underground. The loss can, to a certain extent, be made up by more regular attendance by the miner and if this actually results it would no doubt be a help to the industry. Where the work is mechanized, the miner who can adapt himself to this type of mining will be able to make up the deficiency as with an increased output his earnings will increase.

The Indian Mining Federation, however, report that it is impossible for employers to make good the entire extent of the loss in earning of the women members of the family, and that it is unlikely that women would find remunerative occupation in their village homes and, therefore, the Federation anticipates that a low standard of living consequent on reduced aggregate earning of the family is likely to occur.

Mica Mines.—Mine managers report that the earnings of a family are bound to decrease. The women worker who previously used to work underground in the mine will be unable to take up work in mica splitting factories, as such work has to be learnt when young—while a girl can learn to split mica in six months, a woman would take two years and would never be very efficient.

(iv) *Speed of withdrawal.*—(a) The following figures show the percentage of female workers underground to male workers during the various months of 1929 in certain mines, as furnished by the collieries.

Percentage of Females to Males Underground.

—	Jan.	Feb.	March.	April.	May.	June.	July.
Bhuggutdih	27.63	24.99	24.99	21.38	25.42	28.31	23.85
Eastern Coal Company (Bhowra).	41.00	40.00	40.00	42.00	40.00	40.00	24.00
Central Kurkend	32.20	27.20	27.20	25.70	24.70	25.40	16.40
Ghuslitan	38.00	39.00	39.00	34.00	29.00	28.00	26.00
Lodna	40.55	40.75	41.96	36.90	35.30	29.90	21.40
Standard	20.00	21.16	21.23	20.01	21.52	21.95	17.28
Kendwadiah	39.00	43.00	39.00	41.00	41.00	35.00	24.00
South Baliari	—	53.00	53.00	53.80	47.10	39.00	21.60
Bararee	36.80	36.90	36.30	34.70	34.10	28.20	21.40

At Pure Jharia Colliery the percentage of women underground was on the 31st December, 1928, 43.8 per cent.; for the week ending 9th March, 1929, 49 per cent.; and for the week ending 27th July, 1929, 29 per cent. The figures show that in a number of collieries (among those that have furnished figures, Standard and Bhuggutdih are exceptions) there must be considerable alterations in methods. The effect, however, has not yet been fully felt, as July is ordinarily the month in which the number of women workers underground is at a minimum, as they are absent on planting fields.

(b) Owing to the fluctuation in the daily labour supply, it is difficult for the management to be certain that the percentage of women below ground on any one day will not exceed the legal maximum. The manager of the Pure Jharia Colliery reports that a daily percentage of women underground is impracticable, as there is a great difference in the attendance of persons working underground on Tuesdays and Saturdays.

(c) The speed of withdrawal gives adequate time to the industry to adapt itself to the new conditions.

(d) In cases in which the percentage of women employed is near the maximum some difficulty may be experienced by the management at each successive reduction, in deciding which miner is to be allowed to take his wife down the mine with him. The Indian Mining Federation reports that arbitrary discrimination in this matter has already given rise to serious discontentment. The difficulty, however, is not likely to be insuperable.

XII.—WAGES.

96. Prevailing Rates of Wages and Earnings.

A Mines.—(a) The amount of daily earnings in each important mining field in the province for the year 1927 are given in the Chief Inspector of Mines' Report for that year at page 5. The reports of local officials for the year 1928 show that there has been practically no alteration in wages in that year except in the mica mines of Hazaribagh, where a partial failure of local crops caused a slight rise. It should, however, be noted that the daily earnings of a miner vary very considerably with individual effort and that a hard working miner can earn very considerably more than this average wage. The earnings of a miner depend on the number of tubs raised, and the figures given in answers to questions 2 and 64 show that the average number of tubs raised in a day's work varies between two and three. The figures of 6.75 and 8 tubs a day raised by the Partabgarh worker (shown in the statement

in question 2) probably indicate that more than one miner was engaged under that token number (though the company says this was not so), but in any case it is quite possible for a miner to raise four or even five tubs a day with intensive effort.

(b) The contractors employed by the East India Coal Company, Limited, report that the average weekly earnings in the mines of that company are as given below :—

	Rs.	a.	p.	
C. P. miners.. .. .	3	8	0	to Rs. 4-8-0
Ordinary	3	0	0	
Loaders	3	8	0	
Trolley-men	3	8	0	
Hookmen	4	0	0	
Line mistry	4	8	0	
Line coolie	3	6	0	
Carpenters	5	0	0	
Machinemen	13	8	0	
Drillers	5	0	0	
Loading coolies	3	8	0	
Shale pickers	2	8	0	
Women	2	4	0	

In this company, in which the mines are worked on the contractor system, machine drillers are paid by the company. The daily wages of a machine driller are Rs. 1-12-0 and of their head men Rs. 2-4-0.

B. Factories.—A statement is given below showing the average daily wages of workers of various classes in factories for the year 1928. As, however, these averages are based on returns from rural factories where wages are low as well as from factories in large centres, such as Jamshedpur, where they are high, they do not necessarily represent what the worker of average competence may expect to be paid. There is, therefore, included in the statement figures showing the wages earned in 1928 by operatives of the various classes in seven industrial concerns of varying types in the province :—

Average daily wages in factories during the year 1928.

Occupation.	Whole Province.	Tata Iron and Steel Company.	Peninsular Tobacco Company.	Tinplate Company of India.	Marhaura Sugar Works.	Sri Bihariji Oil Mill, Patna.	Dinapur Rice Mill.	Arthur Butler and Company, Muzaffarpur.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
<i>Supervision of Labour.</i>								
Chargeman of skilled workers.	4 4 0	4 0 0	3 0 0	3 0 0	2 12 0	3 5 4	1 5 4	2 2 8
Chargeman of unskilled workers.	1 9 0	1 0 0	1 8 0	1 4 0	0 9 6	1 13 4	0 10 8	0 7 0
<i>Skilled Labour.</i>								
Pattern maker ..	2 6 0	2 0 0	—	—	—	—	—	—
Engine driver, stationary.	1 0 0	—	—	—	—	0 13 4	0 10 8	—
— engine driver, locomotive.	4 8 0	—	—	2 4 0	—	—	—	—
Fireman	0 15 0	1 4 0	—	0 14 0	—	0 10 8	0 10 8	—
Greaser	0 12 0	—	—	0 14 0	—	—	—	—
Fitter	1 7 0	2 0 0	1 4 0	1 0 0	—	1 0 0	0 8 6	1 5 10
Electrician ..	2 5 0	2 8 0	—	3 2 0	—	1 6 11	—	—
Turner	1 7 0	—	1 4 3	1 2 0	—	—	—	1 10 0
Blacksmith ..	1 5 0	—	1 6 0	1 2 0	—	1 2 8	—	0 14 4
Moulder	1 6 0	1 8 0	1 6 0	0 14 0	—	1 0 0	—	—
Carpenter	1 4 0	1 8 0	1 7 0	1 4 0	1 8 0	1 10 8	—	—
Bricklayer or Mason	1 0 0	—	0 15 0	1 4 0	—	—	—	—
Compositor	1 1 0	—	—	—	—	—	—	—
<i>Unskilled Labour.</i>								
Male Coolie	0 7 0	0 8 0	0 7 0	0 8 0	0 7 0	0 8 0	0 8 0	0 6 0
Female Coolie ..	0 5 6	0 6 6	0 5 6	0 6 0	—	0 5 10	0 5 0	—
Child Coolie	0 4 6	0 6 0	—	—	0 4 3	—	—	—

N.B.—The Tin Plate Company report as their prevailing wages rates somewhat in excess of those given. For instance it is stated that their daily wage for women coolies is annas 7 and for male coolies annas 9.

C. For the sake of comparison a statement is given below of the average rates of wages of ploughmen and carpenters in the various districts of the province, as they were ascertained at the wage census of Bihar and Orissa held in 1924 :—

Districts.	Carpenters.			Ploughmen		
	Rs.	a.	p.	Rs.	a.	p.
Champan	0	10	3	0	4	0
Saran	0	10	3	0	4	0
Muzaffarpur	0	7	0	0	3	0
Darbhanga	0	8	0	0	3	3
North Monghyr	0	7	6	0	3	3
South Monghyr	0	10	0	0	4	0
North Bhagalpur	0	6	6	0	3	6
South Bhagalpur	0	8	0	0	5	0
Purnea	0	12	0	0	4	3
Santal Parganas	0	10	7½	0	5	0
Ranchi	0	11	0	0	6	0
Hazaribagh	0	11	0	0	7	3
Palamau	1	6	6	0	6	3
Manbhum	1	6	0	0	4	0
Singhbhum	0	8	6	0	4	0
Balasore	0	8	3	0	2	0
Cuttack	0	10	0	0	6	0
Puri	0	8	0	0	4	6
Angul	0	10	6	0	3	6
Sambalpur	0	10	0	0	3	0
Patna	0	10	6			
Gaya						
Shahabad						

97. Movements in Recent Years.

A. Mines.—(i) The rate per tub of coal raised before the war was generally four and a half annas. It was raised during and after the war to eight annas or even nine annas and it has now dropped to a general average of seven annas a tub.

(ii) The fluctuations in average daily wages in six mines in the Jharia coalfields during the last six years are given in the statement below :—

Name of Colliery.	1923.			1924.			1925.			1926.			1927.			1928.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Jamadoba	1	0	0	1	0	0	1	2	6	1	4	9	1	3	3	1	3	9
Bhowra	0	14	0	0	14	0	0	14	0	0	14	0	0	14	0	0	14	0
Loyabad	0	14	6	0	14	0	0	14	3	0	15	0	0	15	0	0	15	6
Lodna	0	10	0	0	11	0	0	15	0	0	15	0	1	1	6	0	15	9
Pure Jharia	0	14	6	0	14	6	0	14	6	0	11	3	0	10	6	0	10	9
Bhagora	0	13	6	0	13	6	0	13	6	0	11	0	0	13	0	0	11	9

This statement should, however, be read with the statement showing the variations in output of coal in tons per person employed in the same collieries which is given below :—

Name of colliery.	1923.			1924.			1925.			1926.			1927.			1928.		
Jamadoba	0.45			0.43			0.54			0.80			0.81			0.82		
Bhowra	0.40			0.50			0.50			0.49			0.43			0.44		
Loyabad	0.48			0.47			0.46			0.58			0.54			0.44		
Lodna	0.39			0.41			0.50			0.55			0.59			0.58		
Pure Jharia	0.72			0.92			0.75			0.55			0.48			0.52		
Bhagora	0.43			0.43			0.54			0.72			0.70			0.63		

These figures represent the output of coal in tons per person, taking into account all persons employed in the colliery during the year, such as miners, loaders, skilled and unskilled workers, both underground and surface as well as office staff.

B. Factories.—A statement compiled from figures furnished by the Chief Inspector of Factories, showing the movement of daily wages in seven typical factories in the province, is given below :—



Statement showing the Movement of Daily Wages in Factories.

Name of Factory.	Year.	Supervision of labour.			Skilled labour.							Unskilled labour.		
		Charge- man of skilled workers.	Charge- man of unskilled workers.	Engine driver loco- motive.	Fireman.	Greaser.	Fitter.	Turner.	Black- smith.	Carpenter.	Bricklayer or mason.	Male coolie.	Female coolie.	Child coolie.
Tata Iron and Steel Works, Jamshedpur.	1922	3 8 0	1 0 0	5 8 0	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
	1925	4 0 0	1 8 0	5 0 0	—	2 0 0	2 0 0	2 0 0	2 0 0	1 8 0	—	0 7 0	0 5 9	0 6 0
	1928	4 0 0	1 0 0	—	1 4 0	—	2 0 0	—	—	1 8 0	1 8 0	0 8 0	0 6 6	0 6 0
Panisular Tobacco Co., Monghyr.	1922	1 15 0	1 0 0	—	—	—	1 0 11	1 1 3	—	—	—	0 6 6	0 5 0	0 4 6
	1925	3 0 0	1 4 0	—	—	—	2 10 0	1 0 0	1 4 0	0 15 0	0 13 0	0 7 0	0 5 6	0 4 6
	1928	3 0 0	1 8 0	—	—	—	1 4 0	1 4 3	1 6 0	1 7 0	0 15 0	0 7 0	0 5 6	—
Tinplate Co. of India, Golmuri.	1923	4 6 0	1 8 0	—	—	1 6 0	2 0 0	2 4 0	1 12 0	1 9 0	1 12 0	0 8 0	0 6 0	—
	1925	3 8 0	3 0 0	2 0 0	0 11 0	1 0 0	1 0 0	1 6 0	1 0 0	1 4 0	1 4 0	0 8 0	0 6 0	—
	1928	3 0 0	1 4 0	2 4 0	0 14 0	0 11 0	1 0 0	1 2 0	1 2 0	1 4 0	1 4 0	0 8 0	0 6 0	—
Sugar Works, Marhaura ..	1922	2 10 7	1 0 6	—	—	—	—	—	—	1 5 0	—	0 6 3	—	—
	1925	2 12 0	0 10 0	—	—	—	—	—	—	1 5 3	—	0 6 6	—	0 4 3
	1928	2 12 0	0 9 6	—	—	—	—	—	—	1 8 0	—	0 7 0	—	0 4 3
Sree Bihariji Oil Mill, Patna.	1922	2 8 0	1 10 8	—	0 9 0	0 6 11	1 0 0	—	1 2 8	—	—	0 6 11	0 5 4	—
	1925	2 10 8	1 13 4	—	0 10 8	—	1 1 0	—	1 2 8	1 8 0	—	0 7 0	0 5 4	—
	1928	3 5 4	1 13 4	—	0 10 8	—	1 1 0	—	1 2 8	1 10 8	—	0 8 0	0 5 10	—
Rice Mill, Dmapur	1924	1 5 4	1 0 0	—	0 10 8	—	—	—	—	—	—	0 7 0	0 6 0	—
	1925	1 5 4	1 0 0	—	0 11 2	—	0 14 11	—	—	—	—	0 8 0	0 6 0	—
	1928	1 5 4	0 10 8	—	0 11 2	—	0 8 6	—	—	—	—	0 8 0	0 5 0	—
Arthur Butler and Com- pany, Muzaffarpur.	1922	1 8 0	0 8 0	—	—	—	1 0 0	1 5 4	0 9 7	—	—	0 5 4	—	—
	1925	1 13 4	0 6 8	—	—	—	1 0 0	1 8 0	0 10 8	—	—	0 5 4	—	—
	1928	2 2 8	0 7 0	—	—	—	1 5 10	1 10 0	0 14 4	—	—	0 6 0	—	—

The Tin Plate Company report that the movement in wages in recent years has been upwards and give the following as their average monthly wages per head for all labour.

									Rs.
1926	..	..	..	..	..	..	..	..	32.37
1927	..	..	..	..	..	..	..	..	31.58
1928	..	..	..	..	..	..	..	..	31.68
1929, March, including bonus	..	..	..	..	..	..	..	..	37.8

The company points out that though these figures seem to contradict the statement that wages have moved upwards, it must be remembered that in order to start up the plant the company had to pay higher rates than were warranted in order to attract and retain men and also to engage more men than were necessary in the hope of training them. None of these original men have been reduced and even to-day the company reports that it is paying Rs. 2-8-0 for doing Rs. 1-8-0 job. Men engaged after the plant was well started had to start at the bottom, and the introduction of the properly graded scale caused the apparent drop in wages in 1927 and 1928.

98. Amounts sent to Villages.

The statement given below shows the amount sent to villages from July, 1928, to June, 1929, inclusive, from :—(a) All post offices in the coalfields, Rs. 40,11,032. (b) Jamshedpur, Sakchi and Tatanagar post offices, Rs. 28,39,366. (c) Golmuri post office, Rs. 3,32,394.

There is a drop in remittances from the coalfields in November and again in June. In November it is due to the departure of labour for the harvesting and in June to the departure of labour for sowing. The only noticeable drops in the Jamshedpur and Golmuri figures are the drop in remittances in the intensive period Jamshedpur strike and at the beginning of the Tin Plate strike.

Generally, it is estimated that the miner in the minefields can save from 8 annas to Rs. 1.8 per week, and that this amount of money is generally sent by the miner to his home village, but this can only be a rough figure.

99. Payment in Kind and Allied Problems.

(a) Practically no wages are paid in kind, though in some instances fooding is given in addition to wages.

(b) In some cases arrangements are made to enable employees to purchase commodities cheaply by a system of permits or other means of guaranteeing to the tradesman payment from the wage bill, but these are voluntary methods. Instances are given below :—

Indian Copper Corporation allows its unskilled workmen credit up to one-third of the weekly wage.

Hingir Rampur Coal Company.—Facilities are given by the company to labour to procure rations at the bazaar held on colliery premises every Sunday.

With the consent of the debtor and in his presence payments are occasionally made in part to creditors of employees.

100. Extent and Effect of Payment through Contractors.

In those mines in which the contractor system is in force, the miner and unskilled labour is paid by the contractor, though generally skilled labour is paid by the management. The contractor, however, is bound to pay a more or less similar wage to that existing in the remainder of the minefield, as otherwise the labour would not remain.

101. Methods of Fixing Wages.

Jharia Mine Field.—There is no recognized system by which wages have been fixed in the coalfields for skilled or unskilled labour and they are not standardized.

1. *Factories*.—In general, wages have not been fixed either by negotiated agreements or by any other means. Thus it is found that wages vary fairly considerably even in the same area, as the figures given below showing the rates of wages for (a) Tatas and Tinplate Company, which are both situated in Jamshedpur, and b) the

figures of the Locomotive Works at Jamalpur, and the Peninsular Tobacco Company, both of whom are situated in the neighbourhood of Monghyr, will show :—

Rates of Wages, 1928.

Class of worker.	Tata Company.	Tinplate Company.	Loco Works, Jamalpur.	Peninsular Tobacco Company.
<i>Supervision of Labour.</i>	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Chargeman of—				
Skilled workers	4 0 0	3 0 0	4 0 0	3 0 0
Unskilled workers	1 0 0	1 4 0	—	—
Skilled labour—				
Fireman	1 4 0	0 14 0	—	—
Fitter	2 0 0	1 0 0	—	—
Electrician	2 8 0	3 2 0	—	—
Moulder	1 8 0	0 14 0	—	—
Carpenter	1 8 0	1 4 0	—	—
Unskilled labour—				
Male cooly	—	—	0 6 0	0 7 0
Female cooly	—	—	0 6 0	0 5 6

2. In the sugar industry in North Bihar there is apparently no attempt made to fix wages for the industry, and wages vary fairly considerably between the various concerns.

3. Messrs. Tata Iron and Steel Company report that there are standard rates fixed by a Rates Committee for the various grades and classes of labour employed throughout the steel works. This Rates Committee is composed of certain departmental superintendents who are in close touch with the labour employed in the plant and with the nature of work performed by the various grades of labour in each department.

4. Indian Cable Company report that the rate paid is decided by the supervisory staff and is graded according to the efficiency, working conditions and services of the employee. The amounts paid to the sub-supervisory staff are rated by negotiated agreements.

102. Basis of Payment for Overtime and Sunday Work.

Such information as is available is given in answer to question (55) (ii).

103. Extent of Standardization.

(a) Wages are not standardized throughout any industry. In the coalfields the Chief Inspector of Mines reports that no attempt has been made to standardize wages though they are more or less uniform throughout the field. In the sugar industry there is no attempt to standardize the rates for the various classes of labour throughout the industry.

(b) As regards standardization of wages for particular jobs in a factory, a question was raised in the strike at Tata's Iron and Steel Company in 1928, and the company now reports that standardization is carried out as far as can possibly be done in order to minimize complaints which were frequently made that men when engaged are promised certain rates and eventually they find that they get somewhat less. Under the standardization scheme each job is rated and every employee understands what his minimum and maximum rate will be in that grade and what he can expect when promoted from it to other grades. This has the advantage of rating all men doing the same work so as to yield the same or about the same remuneration irrespective of the department in which employees are working. In the Indian Cable Company wages are standardized for the same class of work. In the Tin Plate Company wages are standardized where men perform the same kind of work,

with the exceptions that some mechanics who are particularly efficient receive higher rates than others and some old workmen are still receiving higher rates than the rate of the job.

104. Effect of Wage Changes on Labour Supply.

1. Wage changes may be said to have practically no effect on labour supply. In the coalfields it is commonly stated that an increase in the rate paid per tub of coal raised is likely to be followed by a decrease in output. This statement was also commonly made at the strike period of 1920-21, when the Deputy Commissioner reported :—

“ I tried to obtain some figures on this point, but the conditions vary so greatly from time to time and the factors which determine the amount of output are so many, that I could find no proof one way or the other. So far as I can judge, however, a sober and industrious man does not relax his work because he gets better pay, but I should say that the tendency of the less industrious class is undoubtedly to work only when they require money and to be idle when they have money in their pockets, and to this extent a raising of wages means a lessening of effort.”

The Indian Mining Federation reports that the raising of wages in 1921 by roughly 25 per cent. had the result that the average working days per week dropped from 6 to $4\frac{1}{2}$.

The facts that :—(a) In some mines an increase in the rate per tub raised on Monday is offered and yet fails to attract any appreciable number of miners to work on that day, (b) all colliery managers consulted stated that an increase of rates per tub in the busy cultivation seasons would not prevent the miner leaving the mine at those seasons, seem to show that a rise in wages would not be followed by any increase in the labour supply, as the labour works when it wants to and then only.

2. The Tata Iron and Steel Company report that wage changes do not affect the company. There have never been any changes made by the steel company in the wages of its labour except to increase them.

105. Minimum Wages.

1. Unskilled labour is generally agricultural and turns to industry to obtain additional earnings to the family budget. The industrial wages of unskilled labour must bear a close relation to agricultural wages, and in order to attract labour to industry the wages paid must necessarily be considerably higher than agricultural wages. Thus, in North Bihar in the sugar factories casual unskilled labour is paid an average of Rs. 3 a week, whereas an agricultural labourer cannot command more than Rs. 2 ; but even so, in busy agricultural seasons the factories find a tendency among their workers to revert to agriculture. In the colliery area there is no evidence that the rates paid are low, and there is little doubt the miner could, on the average, earn considerably more than he does at present if he was prepared to work more regularly. It may be noted that in the recent Jamshedpur strike in 1928, a demand was put forward by the workers in the middle of the strike that a minimum wage of Rs. 1-2-0 a day should be fixed, but this demand was not strenuously pressed, and no decision was come to on it in the final settlement. The local Government are of opinion that there is no necessity to fix by statute a minimum wage for unskilled labour.

2. With regard to skilled labour, figures obtained show that the rates vary even in the same neighbourhood. The variation is quite probably the result of differences in the nature of the work done, though it is possible also that in the absence of Trade Unions a skilled worker is sometimes forced to accept a wage less than he is entitled to. The local Government are, however, of opinion that at present the conditions of industry and the rates of wages are not sufficiently established to make the fixation of a minimum wage feasible at present.

3. The Jamshedpur Labour Association, however, considers that minimum wages should be fixed by legislation, with due consideration to standard of living, nature of work and climatic conditions.

106. Deductions.

(i) An inquiry which was made in 1927 indicated generally that employers did not resort frequently to the use of fines, but that occasionally such fines were inflicted

for breaches of discipline, damage to plant, negligence of duty, disobedience, etc., but the amount of such fines was very small. Some instances of present practice are given below :—

Peninsular Tobacco Company, Monghyr.—Fines or deductions are imposed only for breaches of discipline, continued bad work or wilful damage, and then only when all disciplinary measures have failed. There are no hard and fast rules.

Jharia Mining Settlement.—The imposition of fines is not prevalent in the coal-fields. When fines are imposed on rare occasions they are ordinarily a punishment for breaches of discipline. There can be no regular or extensive system of fining in the coalfields as labour is in demand, and therefore in a strong position and would be able to contest any excessive or unjustified fining.

Tata Iron and Steel Company used to inflict fines for (a) culpable negligence and the loss of or damage to employer's property, (b) loss of nickel or bronze tokens issued for the purpose of identification, but now report that fining as a form of punishment for delinquency has practically been eliminated, as can be seen from the following figures of the amounts collected in fines during the last three years :—

					Rs.
1925-26	..	..	..	..	10,854
1926-27	..	..	..	..	5,039
1927-28	..	..	..	..	334

The Tin Plate Company.—Fining has been completely discontinued in the company since the beginning of 1928.

Tatanagar Foundry.—As a rule no fines are inflicted nor are there any other deductions from the wages.

Indian Cable Company.—Make no deductions or fines except that a man pays for any of the company's tools or properties that he loses. Deduction is only made in the case of loss and not for breakage or damage, and is considered by the company to be essential to reduce theft.

The Mica Mines at Saphi, Bhanehkhap and Chathhari.—At first a verbal warning is given to the workman. If that warning does not prove to be effective, the workman is only paid half a day's wages. In exceptional cases where the labourer is found idle several times in a day, he is fined the whole day's wages. Such fines are not shown separately, but the attendance is not marked in the registers at all, or only half a day's attendance is shown to the credit of the workman as the case may be.

Lalpur Lac Factory.—No fines are regularly imposed, but occasionally when workmen destroy materials half the price is levied from them.

Hindpuri Lac Factory.—Fines workmen whose outturn is very much below the average and devotes the proceeds to rewarding good workmen. In no case does the fine exceed 25 per cent.

Japla Cement Works.—The system of fining here is practically non-existent, and if ever a fine is imposed the employee who is fined is allowed to redeem the amount of fine by subsequent good work.

Arthur Butler and Company.—No system of fining is adopted, and the manager reports that experience has taught that where any man has transgressed sufficiently to merit an effectual fine, it is wiser to dismiss him, for if a fine is inflicted, the amount is invariably recouped by stealing or in other ways.

Sugar Factories.—Fines are not generally imposed.

Rice and Oil Mills.—Practice varies. In some cases, as in the Aryan Mills, Dinapore Rice Mill, Shree Bihariji Mills, Patna, fines are inflicted for slackness and negligence of duty. In other cases, such as Shree Das Rice Mills, Shri Mahabirji Rice and Oil Mills, Darbhanga, they are not.

These instances seem to show that the extent of fining is very moderate throughout the province, and does not disclose any abuse of power necessitating legislation.

(iii) *Utilization of fines.*—Fines are either utilized for some charitable purpose or in some cases the worker is allowed to earn back his fine by good work on subsequent occasions. Instances of the manner in which fines are utilized are given below.

Tata Iron and Steel Company.—Fines are utilized for hospital fund.

Peninsular Tobacco Company.—Fines are credited to a special account maintained by the company and used for the relief of employees or their family in deserving cases.

Aryan Mills.—Fines are credited to a charity fund from which prizes are given to those doing good work.

Shree Bihariji Mills.—Fines were paid to the local *Gaoshala*.

Indian Cable Company.—The money deducted is used to replace the article lost.

(iv) After consultation with the local officials, who were almost unanimously opposed to any special legislation being undertaken and in agreement with the Commissioners of each of the five divisions of the province, the local Government formed the opinion in 1927 that the statutory prohibition of fines is not desirable, and would have unfortunate results for the workmen themselves, while so far as conditions in this province are concerned no special legislative measures of any kind are required to remedy or prevent abuses in the imposition of fines. There has been no change in the position regarding fining, and the local Government are still of the same opinion.

107. Periods of Wage Payment.

(i) An enquiry was made in 1924, and the results of this enquiry have been incorporated in the Bulletin of Indian Industries and Labour No. 34.

There has been no material alteration since that date.

(ii) *Periods elapsing before payment.*—Generally there has been no material alteration since the enquiry of 1924, the results of which are also published in the same Bulletin.

Messrs. Tata's Iron and Steel Works, however, report that they have been able to shorten the waiting period for the payment of labour on monthly rates. Previously the company had reported that their monthly rated men who were mostly skilled were paid between 5th–18th of the succeeding months. The company now reports that all are paid generally by the 12th and invariably by the 15th.

(iii) (1) The local Government are of opinion that conditions in this province are not such as to require legislation either for the regulation of periods of payment or to prevent delay in payment.

(2) The proposal for a weekly payment bill made by Diwan Chaman Lall was examined by the local Government in 1924, and it was found that the employers generally disliked the idea because of the increased cost in the economically unproductive work of accounting, and it was urged that if the experiment was to be tried it should at least be confined in the first instance to mines and factories where, as a matter of fact, weekly payment system is widely in force already. It was also found that weekly payment (where not at present in force) was apparently not generally desired by workers.

The manager of the Bengal Iron Company took a referendum among his staff and found some 4,500 employees among the staff in favour of monthly payment, while some 200 only desired weekly payments.

The Jamshedpur Labour Association regarded the Bill with apprehension as likely to deprive the monthly paid staff of payment for holidays and other privileges and concessions which they now enjoy.

It may also be noted that in the terms of settlement that were offered by the Tin Plate Company Union before the strike the company accepted the workmen's desire to be paid monthly instead of weekly.

(3) No dissatisfaction with regard to periods of wage payment has ever come to the notice of the local Government. When strikes have occurred at Jamshedpur, Jamalpur and other places no such dissatisfaction has ever been expressed by the strikers. So far as the larger industries are concerned payment of wages is invariably made as soon as the necessary accountancy can be concluded, while in the smaller industrial concerns no great delay occurs.

In the mining industry the figures on page 24 of Bulletin No. 34 show that there is no delay in the payment of wages by colliery proprietors, and in the Jharia coalfields wages are paid weekly.

In the case of Tata's Iron and Steel Company the number of employees is approximately 29,000, of whom between 12,000 to 14,000 are paid weekly, while the rest are paid monthly, and payments are made by this company as early as possible (and the company have already reduced the waiting period since 1924, and are taking steps to reduce it further), and it is stated that it would be impracticable for a company employing so large a staff to comply with the proposed periods that were suggested by the Government of India in letter No. L.1391 of the 28th July, 1926.

In the Jamalpur workshops of the East Indian Railway 15,000 workmen are employed and wages are paid monthly on the 15th of the succeeding month, and at the East Indian Railway strike in 1922 no complaint was made by the strikers with regard to the period of their wage payment.

The Peninsular Tobacco Company employs 6,000 men, and wages are paid monthly not later than the 10th day of the month following that in which wages are earned. The company have stated that this system is best appreciated by their employees, and is more likely to keep them out of debt than payment for a shorter period.

(iv) *Treatment of unclaimed wages.*—The local Government have little information on the matter, but are of opinion that cases of unclaimed wages probably seldom arise in this province. The following reports from companies have been received. In Messrs. Tata Iron and Steel Company the unclaimed wages are ultimately absorbed into the workmen's pension and gratuity fund. In Messrs. East Indian Railway Company's workshops at Jamshedpur unclaimed wages are paid on subsequent demand. In the Tin Plate Company it is reported that unclaimed wages are used as a charity fund entirely for the benefit of Indian workmen, and that a statement of unclaimed wages is available.

108. Indebtedness.

Jharia coalfield.—Generally labour is indebted to some extent to the moneylenders in the bazar. The extent of such indebtedness is probably not very large. The mine managers generally report that it does not exceed one week's wages. The extent of indebtedness varies, according to some mine managers, with caste and social customs. Non-residential labour (e.g., Santalis) as a rule does not borrow at the colliery, but residential labour, such as surface loading coolies, e.g., *Dusadhs* and *Bhuias* borrow from shopkeepers and *Kabulis*. Skilled workers frequently receive advances from companies, but these are invariably repaid. One labour contractor makes the following report regarding the expenditure of workers: "The Central Provinces labour (that is labour from the Central Provinces and the United Provinces) gamble most. All classes drink, the *Dusadhs* being about the worst. The Central Provinces and Madras save most; they earn more than ordinary miners. The Santalis appear ordinarily to be a saving caste, but they save probably to drink in their villages.

109. Bonus and Profit-sharing Schemes.

Jharia coal mines.—There is no profit-sharing scheme in the coalfield, and the only bonuses that are paid are those paid to miners in some collieries for working six days a week or for loading extra tubs. Labour contractors also sometimes pay a similar bonus to miners who raise extra tubs.

Factories.—The following companies report the existence of bonus schemes.

1. *Messrs. Tata's Iron and Steel Company.*—There are various types of bonus schemes which are detailed in the Company's memorandum.

2. *Messrs. Tata's Agrico Company.*—Most of the actual production and finishing work is performed on piece-work rates, but a bonus scheme has been worked out for the non-production staff by which those engaged on non-production work based on the output of tools, which can be handled without any increase in the non-productive labour force.

3. *Tin Plate Company.*—A percentage of salary is paid as a bonus on production. The percentage increases with the output. On the hot mills, where men work in crews, bonus is paid on the production obtained by each crew. The rest of the plant is paid the average of the hot mill crew's bonus calculated on individual earnings. This scheme was, however, only in force from the 1st March, 1929, until the strike broke out on the 7th April, 1929.

110. Annual Leave.

(i) *Messrs. Tata Iron and Steel Company* report that, except in a few cases among the higher grades of the supervisory staff, leave is availed of as it becomes due, and is in many cases overdrawn.

Kuchwar Lime and Stone Company report that leave is usually taken in short periods during the course of the year. The clerical staff seldom avail themselves of the full leave allowed; the total leave taken by other permanent employees is usually not less than the period sanctioned.

Jharia coalfield.—Unskilled labour remain absent from work as they like. In the case of skilled labour they are apt to return to their homes on leave at least once a year.

(ii) It may generally be stated that "monthly rated" staff is granted an adequate amount of leave by its employer. In the case of "daily rated" staff procedure varies. Where the work is more or less regular or organized, it is probable that leave will be granted, if required. Where, however, a worker is able to absent himself at will, leave will generally not be granted. Reports regarding the leave facilities granted are given below :—

Tata Iron and Steel Company.—(1) All monthly rated employees are allowed :—
(a) One month's privilege leave, five days' casual leave, two days' festival leave with pay only, all of which may be combined, and (b) six months' leave on half-pay or three months' leave on full pay after seven completed years of service.

(2) Daily rated staff—

14 days' leave and two days' festival leave with full pay.

Employees can utilize leave earned on full pay to cover time lost by sickness and leave earned does not lapse if not taken.

In the Tin Plate Company.—Daily rated employees are only granted leave with pay for two days' festival leave per annum. Monthly rated employees are granted 14 days' privilege leave, five days' sick leave, and two days' festival leave per annum with pay.

Tatanagar Foundry.—Monthly rated men get one month's leave with pay in the year. As attendance of daily rated men is optional, no leave is allowed. Generally they attend regularly, but rare cases have arisen when daily rated men have been replaced on account of their long absence and irregular attendance.

Sone Valley Portland Cement Company.—The staff are allowed one month's leave per year and labour in accordance with the Mines and Factory Act. The amount taken by the staff varies considerably.

Kalyanpur Lime Works, Limited.—There is no standing rule, but leave to the extent of 10 days to a month is given during the year.

Bengal Iron Company.—Skilled labour is allowed 17 days' leave on full pay and extra on special occasions.

Peninsular Tobacco Company.—The factory is closed on the usual festival days, and 10 to 12 days' holiday is given as a matter of rule during the Durga Puja festival, and extensions to this period are allowed to those employees who have made arrangements to leave Monghyr.

Jharia coalfields.—No leave is given to unskilled labour which absents itself when it likes. Skilled labour is frequently given leave by arrangement with the management, the amount dependent on the length and approved nature of the employee's service.

111. Desirability of Fair Wages Clause in Public Contracts.

The local Government are at present unable to express any opinion.

XIII.—INDUSTRIAL EFFICIENCY OF WORKERS.

112. Comparative Changes in Efficiency of Indian Workers in Recent Years.

A. Factories.—Most of the unskilled labour are recruits who have arrived from agricultural pursuits or rural areas, and are quite unfamiliar with machinery or factory plant or factory discipline. At first they are in strange surroundings, and it takes them some time to get used to such conditions. Previously this class did not generally (though there were exceptions) stick to the work for any great length of time and their efficiency was low, but in recent times owing to pressure on the land there is a greater tendency amongst this class to stick to the work and in so far as this has happened there is slightly greater efficiency. Semi-skilled and skilled workers stick more regularly to the work, and in course of time rise to the position of subordinate supervising staff, and in the small industries these skilled men become engineers or mistris. It is stated that in this class greater efficiency is perceptible during recent years.

Messrs. Tata Iron and Steel Company state that in their opinion there has been an increase in the efficiency of Indian workmen during recent years, but the labour turnover is still too great to state to what extent with any degree of accuracy. Labour unrest has, however, to a certain extent prevented the increase in efficiency which the company would otherwise have expected.

A statement that has been furnished by Messrs. Tata's Iron and Steel Company for the financial years 1923-24 to 1927-28 (the year 1928-1929 was not a normal

year consequent on the disorganisation arising out of the strike) shows that the number of tons produced per man per annum has steadily increased in each year in the following departments :—

Coke ovens, blast furnaces (pig iron), open hearth (steel ingots), duplex plant (steel ingots), new blooming mill, new rail mill, merchant mill, sheet bar and billet mill, sheet mill.

That there has been some reduction in the output per ton per man in the old *blooming mill*, the old rail mill, the old bar mill, while the production in the plate mill has remained more or less stationary.

Indian Cable Co. report a moderate increase in efficiency, while the Bengal Iron Co. say that efficiency is about the same.

The Tin Plate Company of India report that there has been no change in the efficiency of unskilled workers or of such classes as fitters, machinists, blacksmiths or carpenters who come to the company having already learnt their trade. The Company has also not been working sufficiently long for the apprentices who are employed in the mechanical and electrical departments, to make any appreciable effect on their labour supply. In the case of skilled labour in this Company it is, however, reported that progress has been made and men have now been trained for all positions in the hot mills, and Indian foremen and instructors are employed, though it is still necessary to employ expert covenanted hands in jobs requiring the finer points of judgment in the hot mills. In other departments Indian shearers picklers, annealers, tin house operators and sorters are employed, and it is reported that little difficulty is experienced in training new men in a short time. There are no covenanted superintendents in the time office, stores, mechanical, electrical, machine shop and traffic, etc., which are all superintended by local men who have risen from ranks.

B. Coal Mines.—The Indian Mining Association considers that there has been an advance in efficiency among the skilled labour, but not in the case of unskilled labour. The Mining Federation considers that there has been no increase in efficiency. Various mine managers have formed various opinions—one states that there has been a general increase in efficiency, others that there has been no increase, and others that the increase is only in the case of skilled labour.

113. Comparative Efficiency of Indian and Foreign Workers.

It is somewhat early to compare the respective efficiency of Indian and foreign workers. The industrial system in India on modern lines is of much more recent date than in most other industrial countries, and except to a very small extent there is hardly an industrial class in this province used to industrial life and factory machinery. The home life of the recruit is quite foreign to modern mechanical or industrial conceptions, and at the factories the recruit has small opportunity of acquiring higher or theoretical knowledge of the plant he operates, and his only knowledge is based on practical experience. Naturally, therefore, as conditions exist at present the Indian workman is not equal to the workman in industrial countries in point of efficiency.

Tata's Iron and Steel Company, who have experience of both Indian and foreign workers, state that they employ in relation to output a far greater number of employees than a similar works would in western countries. India is mainly an agricultural country, and the workmen of the iron and steel industry do not have the experience or skill of the workmen in those countries where the industry has long been established. Climatic conditions also operate to the disadvantage of Indian workmen, and the education, health, physique and standard of living generally are lower than is to be found in western countries, which adversely affects the efficiency of local workers. It may, however, be noted in connection with this company that the figures furnished in answer to question 11 show that the reduction in the number of covenanted employees has been accomplished concurrently with an increase in the average monthly output in tons.

The Tin Plate Company report that the Indian worker is not so efficient as the European or American tin worker. In the hot mills, for instance, they state their mills work on the double mill, three part system and carry crews of 42 men per mill, whereas on similar mills in the United States the crew number is only 18. In 1926 the Company employed 2,734 employees, excluding those who are not properly part of the work organisations. It was stated by the Welsh Plate and Sheet Manufacturers Association in their evidence before the Tariff Board that the total number of employees for a six-mill equipment similar to that of the Tin Plate Company operating three shifts and producing 36,000 tin plates per annum would be between 700 and 720. In 1927 (the last year of normal working) the Tin Plate

Company's output was 43,191 tins of finished plate, and therefore the labour ratio of the Tin Plate Company as compared to that of the Welsh Plate Association was 1 : 3. Since 1927 further improvement has been made, and the company now estimates that the ratio would be 1 : 2·8.

114. Extent to which Comparisons are Effected by—

(i) The frequent absenteeism of unskilled workers, to which reference has been made in answer to question 7, undoubtedly impairs their efficiency, even though a tendency is now noticeable for workers who have had experience in industrial concerns to return to such concerns after periods of absence.

(ii) *Use of machinery*, (iii) *Comparative efficiency of plant*.—The Chief Inspector of Factories reports that the arrangement of the factory plant, its working and sometimes the plant itself are frequently of an obsolete nature and mechanical transport or handling of goods save in the largest and most up-to-date industries is unknown. Efficiency and output consequently suffer. This, however, is not true of the larger and more up-to-date industries, for instance the plant in Messrs. Tata Iron and Steel Company and in the Tin Plate Company is of a very modern and efficient type, and similarly in the case of many other companies. At the same time in the smaller companies there is undoubtedly considerable force in the remark of the officiating Chief Inspector of Factories that output and efficiency are diminished by inefficient plants.

(v) *Physique*, (vi) *Health*.—The physique and health of industrial workers is no worse than that of ordinary agricultural workers, and is probably little if any worse than that of industrial workers in other parts of the world. Neither of these points, therefore, should affect the comparison in efficiency of Indian and foreign workers.

The Tin Plate Company, however, reports that in their opinion the average Indian physique and health is not as good as that of foreign workers.

(vii) *Education*.—The Chief Inspector of Factories estimates that fully 95 to 98 per cent. of workmen have no elementary education. The answers to questions dealing with education show that little is being done in the way of night schools, and until compulsory education is introduced, even if such schools existed, they would be little attended. In all industries lack of education is a serious handicap to the attainment of any great degree of efficiency.

(viii) *Standard of living*.—The Indian workman's diet is generally not suitable and produces insufficient energy for sustained effort. It is, however, what he is used to. Until he is educated to appreciate the value of a higher standard of living, it will be useless to expect such higher standard of living merely from an increase in wages.

(ix) *Climate*.—The climate undoubtedly affects adversely production. Reference may be made to the figures given for production compared with the number of miners employed for Loyabad colliery in answer to question (8) (iii). It will be seen that in August and September the number of tons cut per miner working was considerably less than in the other months of the year. An enquiry was made from the company to try to ascertain the reason for this, but no reply has yet been received. Unless there is any particular reason for the drop it may perhaps show that in the humid months of August and September the energy of the miner is reduced with consequent reduction in output.

XIV.—TRADE COMBINATIONS.

117.—(i) Extent of Organisation of Employers.

The following employers' organizations exist:—(a) The Indian Mining Association—an association of owners of European controlled mines. (b) The Indian Mining Federation—an association of owners of Indian controlled mines. (c) The Kodarma Mica Mining Association. (d) The Bihar and Orissa Mica Association, Giridih. (e) The Bihar and Orissa Chamber of Commerce. (f) The Bihar Planters' Association—an association of Indigo planters and other planters in North Bihar. (g) The Indian Metallurgical Association.

The activities of these associations may be said to centre rather in trading conditions than in labour conditions, though the committees of the various associations are always prepared to enter into communication with Government and furnish opinions on any matters connected with labour.

There are also two associations of mine managers—the Association of Colliery Managers in India, and the Indian Mine Managers' Association.

(ii) Extent of Organization of Employed.

Besides the registered trade unions, the only organizations of employed, other than railway organizations worthy of note are (a) Jamshedpur Labour Association, and (b) Indian Colliery Employees Association.

(a) *Jamshedpur Labour Association*.—This association was formed in 1920, and was offered recognition by the company in 1921 on certain conditions, the chief of which was that membership must be confined to the company's employees. As, however, its promoters and secretaries were not company's employees recognition was not extended to it at that time. After 1922 the Association was reorganized, with Mr. C. F. Andrews as its President, and was eventually recognised by the company. During the strike of 1928 the Association was recognised by the company as the official mouthpiece of the men, though it had actually ceased to have any great influence with a large number of the strikers. The Association reports that its activities are directed to looking after the welfare of its members as regards their economic, social, moral, educational and physical development.

(b) *Indian Colliery Employees' Association, Jharia*.—This Association was formed in 1920, and according to its annual report of 1928 now has a membership of approximately 2,000, of whom 1,500 are "actual picks, and other miners," and the rest are the general office and outdoor staff of the collieries.

All colliery employees and miners are eligible for membership of the Association and the affairs of the Association are managed by an Executive Committee of 21 members who are elected by votes at the annual general meeting of the Association. From amongst the members of the executive, one president, one vice-president, one honorary secretary and one auditor are elected for the year and there are also three paid permanent assistants.

During the year 1928 the Association states that steps were taken to redress the grievances of individual members and other mine workers in about 100 cases—7 were under Workmen's Compensation Act, 83 non-payment and irregular payment of wages, and the rest under miscellaneous heads. In the compensation cases, compensation was realized and paid to claimants by contest in the court, while the majority of the other cases were settled by compromise though some were rejected for want of proper grounds.

120. Individual Trade Unions.

(iii) All registered Trade Unions have now been recognized by employees. The Jamshedpur Labour Association is also recognized by the employers.

121. Trade Unions Act, 1926.

(i) Only three Unions have been registered up to date:—(a) The East Indian Railway Union. (b) The Labour Federation at Jamshedpur. (c) The Gulumuri Tin Plate Works Union.

In the case of all these three unions the executive includes a person or persons who are not personally engaged in the industry in which the members as a body are employed.

(ii) As two of the Unions have at present not been registered for a year it is too early yet to express any adequate opinion on the effects of the Act. It may, however, be noted that in the Jamshedpur strike of 1928 the strike was under the control of no registered union, nor even of the Labour Association which is not registered.

(iii) *Possible Amendments*.—The local Government have no suggestions to make.

XV.—INDUSTRIAL DISPUTES.**123. Extent of Strikes and Lockouts.**

A statement is given below showing the duration, number of strikers, and maximum number of persons affected for all important strikes (other than railway strikes) that occurred in the Province between 1920 and 1924 and for all strikes (other than railway strikes) that have occurred since that date. It will be seen that during this period no strike was reported from the Jharia coalfield. There, was however, what may be called a "strike period" in the Jharia coalfield in the winter

of 1920-21, when there were a number of small strikes. These strikes were, however, of short duration and not very important. It was thought at the time that there was some risk of a general strike in the coalfield, but such general strike never materialised

Name of industrial concern.	Duration.	Number of strikers.	Maximum number of persons affected.
1. Government Printing, Gulzarbagh.	10th February, 1922 to 28th March, 1922.	233	317
2. Kumardhubi Iron Works.	25th November, 1920 to 2nd December, 1920 again 3rd January, 1921 to 22nd January, 1921.	1,000	1,000
3. Tata Iron and Steel Works.	19th September, 1922, 10 p.m. to 23rd October, 1922, 6 a.m.	Maximum 19,000 of whom 14,000 resumed before the strike ended.	30,000
4. Tin Plate Company of India, Limited, Hot Mill Department.	31st March, 1924, to 6th April, 1924.	1,000	1,000
5. Tin Plate Company Cold Mill.	3rd January, 1925, to 8th January, 1925.	50	50
6. Shellac Manufacture, Jhalda.	6th August, 1926, to 19th August, 1926.	500	500
7. Shellac Manufacture, Balarampur.	13th August, 1926, to 28th August, 1926.	500	500
8. Tata Iron and Steel Works, Open Hearth Department.	2 hours on 11th April, 1927.	No information.	No information.
9. Tata Iron and Steel Works Duplex Plant.	1 day, 1927.	No information.	No information.
10. Tata Iron and Steel Works Hot Mill and Shearing Shaft of Sheet Mill.	Tuesday, Friday, in December, 1927.	No information.	No information.
11. Tata Iron and Steel Works Electrical Department.	17th February, 1928, to 23rd February, 1928.	1,100	1,100
12. Tata Iron and Steel Works, Rail Finishing Mill.	15th March, 1928, to 25th March, 1928.	700	700
13. Messrs. Christien and Company Mica Splitting Factory.	16th March, 1928, to 23rd March, 1928.	596	630
14. Jessop and Company, Jamshedpur.	4th April, 1928, to 12th April, 1928.	200	700
15. Tata Iron and Steel Works, Jamshedpur.	21st April, 1928, to 13th September, 1928.	17,500 (inside workers).	*20,000 (inside workers).
16. Tin Plate Works, Golmuri.	6th April, 1928, still progressing.	2,800	3,000

* 9,000—10,000 persons (outside workers) were also affected.

(iv) *Loss to industry and workers.*—The Deputy Commissioner of Singhbhum estimates that in the Tata's Iron Steel Company strike of 1928, the direct loss to the company was a crore of rupees while the indirect loss from general dislocation of business is not estimated. He also estimates that approximately the number of

working days lost was a million and a half and that, therefore, the men lost about 30 lakhs of rupees. A subsidiary loss occurred to the Tin Plate Works where the company continued to pay wages for full-time though the amount of steel being received by them was only sufficient to enable half-time work to be done. The loss to this company by doing this is estimated at 2½ lakhs.

124. Conciliation and Arbitration Machinery.

(i) The district officials while maintaining an attitude of strict neutrality are always prepared to listen to both parties and to communicate if desired the view of one party to the other.

Certain non-official gentlemen have taken considerable part in some strikes, more particularly the larger strikes, and have been in some cases of considerable help in bringing the disputes to settlement.

(v) Generally full opportunity appears to be allowed for workpeople to make representations. Though there has been among some employers a tendency not to receive representations from their workmen, unless such representations are presented by one or more of their workmen and not by outsiders.

125. Trade Disputes Act.

(a) The local Government have at present had no experience of the working of the Act and have therefore no points to raise in connection with it.

(b) An application was received from the representatives of the workers in the Tin Plate Works strike for action to be taken under the Trade Disputes Act, but for reasons which have already been reported to the Government of India, it was decided that it would be in the special circumstances of the case fruitless to take such action.

126. Attitude of Government.

(i) *Towards trade combinations.*—The local Government is always ready to consult such trade combinations as are concerned in questions relating to the alteration of the law or conditions of any industry, and always carefully considers the opinion of such trade combinations.

(ii) *In connection with industrial disputes.*—The attitude adopted by district officials has been noted in answer to question 124 (ii). Government itself watches most carefully the progress of every industrial dispute, and makes all necessary arrangements for the maintenance of law and order, and for the protection of the individual in the exercise of his legal rights. As stated in answer to the last question the local Government has not up to the present made any use of its powers under the Trade Disputes Act.

XVI.—LAW OF MASTER AND SERVANT.

127. Effect of Repeal of Workmen's Breach of Contract Act.

The Act was not in force anywhere in the province for a period of nine years previous to its repeal, and no difficulties have been experienced since its repeal.

129. Extent to which (i) Civil, (ii) Criminal Law is available and used for enforcement.

No occasions are known in which Civil or Criminal law has been used for enforcement of any contract with a worker, and no figures are available regarding the extent to which the Civil law is utilised in the case of covenanted workers.

132. Employers' and Workmen's Disputes Act : Is it used ?

The Act is not in use in this province.

XVII.—ADMINISTRATION.

133. Central and Provincial Legislatures.

The only resolution that has been moved in the provincial Council in connection with labour questions is that moved by Lala Baijnath in 1926 regarding maternity benefits, which has been discussed above in answer to question No. 31.

135. Relations between Central and Local Governments.

The local Government have no points to bring forward.

136. Administrative Authorities in Various Governments.

There are no labour offices or officers in this province.

137. Effects of Differences in Law or Administration in Indian States and British India.

In the Feudatory States existing in the province there are no factories of any importance. There are, however, a certain number of mines: the hæmatite and manganese mines of Messrs. Bird and Company in North Keonjhar, the hæmatite mines of Messrs. Tata and Company in Mayurbhanj, the Bisra Stone and Lime Company in Gangpur, the asbestos quarries of Seraikela, the kyanite quarries in Kharsawan, and the Talcher coalfields. The political agent and commissioner of the Feudatory States reports as follows regarding the conditions in these mines:—

Safety.—Although the rules on the subject which are in force in British India are not in force in the States, safety precautions are observed on practically the same lines by Tata's, Bird's, the Bisra Stone and Lime Company and the Talcher Company, which cover over 95 per cent. of the total labour employed. The number of accidents is rare and compares favourably with the number occurring in the Singhbhum district. Compensation under the Workmen's Compensation Act is paid by Tata's, the Talcher Coalfields Company and the Bisra Stone and Lime Company and probably also by Bird's. The Workmen's Compensation Act is in force in Mayurbhanj and Talcher, and its spirit is observed in Gangpur and Keonjhar.

Hours of Work.—The hours of work in the Talcher coalfields and Messrs. Bird's manganese and iron mines are stated to be 56 hours per week.

A great deal of the labour is employed on piece-work under which system workers are allowed to choose their own time and to rest as they desire. Where this system is not in force either the mines are closed down entirely on Sunday as in Keonjhar, or they are closed down early on the local market days.

General.—The political agent, who also has experience of the Singhbhum district, reports that from what he has seen in the Feudatory States he considers that there is no difference whatever (either as regards production or health of workers) between the Feudatory States and British India, and that in view of the fact that most of the companies employing labour in the Feudatory States are also working in British India, he is of opinion that conditions inside and outside the States are identical.

138. Acquaintance of Workpeople with Factory Legislation.

In the rural areas and in the smaller industries the acquaintance is very slight, but in the industrial centres, or where the workpeople are better educated, a growing knowledge and interest in factory legislation is evinced. Under Section 36 of the Factories Act an abstract of the Act and the Rules thereunder has got to be affixed in a conspicuous place in every factory, in English and in the language of the majority of the operatives.

139. Factory Inspection.

(i) (a) The staff consists of a Chief Inspector of Factories and one Inspector of Factories; the post of a draughtsman for technical work in the office was sanctioned last year.

(b) The question of adequacy of staff was examined by the local Government last year, and it was decided to make use of Section 4 (4) of Factories Act to appoint 10 sub-divisional officers *ex-officio* Inspectors of Factories within the local limits of their respective jurisdictions, while the Additional Deputy Commissioner of Dhanbad has also been vested with the powers of District Magistrate under the Factories Act.

The main objects in appointing these additional Inspectors were:—

(1) To make use of local knowledge, the lack of which often handicaps the regular inspector in his efforts in checking the periods of labour actually worked in the factory and the holidays actually granted.

(2) To relieve the regular inspector to some extent of that portion of the work which does not require technical knowledge of constructional and industrial processes, leaving him freer to devote himself to the engineering side of his work.

(c) The present staff is considered adequate, though it is intended to re-examine the question afresh when experience has been obtained of the revised exemption orders which have recently been issued, and of the revised factory rules which are being issued. It is expected that these revised rules and exemptions may bring with them an increase of work, but until the extent of that increase is seen, it cannot be known whether the appointment of an additional inspector will be necessary.

(ii) *Uniformity of administration in different provinces.*—In this province it has been found impracticable to insist on managers of factories holding certificates of competency, though it is understood that such certificates are still required in Bombay and the United Provinces. In this province it is impracticable to require

certificates of competency for the following reasons:—(a) Most of the factories are small and unimportant, and are not such as would permit the employment of expensive and highly qualified managers. (b) The administration and supervision of such certificates in 200–300 petty factories spread all over the province would be extremely troublesome and would throw an increased amount of work on factory inspectorate and would probably be not worth while. (c) The requirement of certificates would be extremely irksome to petty factories, and would almost amount to interference with their trade. It has, therefore, been considered that it would be impracticable to enforce technical qualifications in petty factories, and that it is unnecessary to do so in the case of large factories such as Jamalpur and Tata's, since their own interests compel such factories to employ highly qualified men.

(iii) (a) The number of inspections by inspectors of factories is given in the statement below. As the various factories are situated throughout the province at considerable distances from each other, it is not possible to increase the number of inspections:—

Year.	Number of registered factories.	Number of inspections, i.e., number of factories inspected.	Number of visits.	Percentage of inspection to registered factories.	Percentage of visits to registered factories.
1925 ..	242	189	247	74.3	102
1926 ..	242	186	291	77	120.2
1927 ..	255	115	189	45.1	74.1
1928 ..	261	154	220	59	84.3

(b) The local Government are satisfied as to the efficiency of the administration. They are satisfied that there is general compliance with the rules under the Factories Act, and that preventable accidents are being kept at the minimum possible figure.

(iv) (a) The statement below gives details of prosecutions under the Factories Act during the years 1921–28 inclusive:—

Year.	Number of Prosecutions.				
1921	—
1922	7
1923	—
1924	6
1925	2
1926	1
1927	2
1928	5

(b) The number of prosecutions is small. As the Department was a new one it was at first the policy of the local Government to try to secure compliance with factory rules by co-operation with and advice to factory managers, and it was only in really obstinate cases that prosecution was undertaken. The fall in the accident rate in all industries other than the metal manufacturing industries shows that the policy has been successful; while an analysis of the figures for the seven years ending 1928 for the province as a whole (expressing each class of accident classified under the causing agents as a percentage of the total accidents) seems to show that the kind of accident which prosecutions can most improve by compelling simple fencing (i.e., belts, pits, and mill gearing) are the least frequent of the accidents that occur, and that accidents that prosecution is not much able to influence (i.e., falling weights, hand tools and persons falling) are amongst the most frequent accidents.

The accidents occurring from machinery of the industry are mostly confined to Tata's, where the safety or dangers of the industry are absolutely beyond mitigation by the kind of measures that can be enforced by prosecution. This point has been thoroughly discussed in answer to question (45) above.

(c) A further difficulty in prosecuting occurs (especially in the larger industries) in the difficulty of placing responsibility for accidents. This is exemplified by the mixer crane accident (which is described in paragraphs 7 and 8 of the Report of the Chief Inspector of Factories for 1928).

(d) The local Government are advised that Section 41 of the Factories Act overrides Section 287 of the Indian Penal Code, and are doubtful whether the penalty provided under Section 41 of the Factories Act is in all cases sufficient, e.g., in a case where operatives' lives are risked by deliberate disobedience of orders of the Chief Inspector of Factories. The point was considered in connection with the prosecution of the managing director and manager of a certain factory for failing to keep certain machinery securely fenced as required by the rules of the local Government, and by order of the Chief Inspector of Factories. In his order the Chief Inspector had stated that "the machinery in the crushing shed is totally unfenced and is the most dangerous I have seen for some time. If allowed to remain in its present condition it will be only a matter of time before someone is killed." This was on the 20th January, 1926. On 17th February the manager had reported that the defects had been removed. But on the 6th of May a fatal accident occurred to a cooly in the crushing house as a result of quite inefficient fencing having been erected. A case was instituted and a conviction secured with a maximum fine of Rs. 500.

XVIII.—INTELLIGENCE.

143. Existing Statistics.

As there is no labour office in this province, the amount of statistics collected and prepared is not extensive. Such statistics as are published in the reports of the Chief Inspector of Factories, Chief Inspector of Mines, Registrar of Trades Unions are collected and published. The returns required under the Workmen's Compensation Act are also furnished and statistics compiled. Certain statistics are also collected relating to people engaged in mines that are not subject to the Mines Act, while reports are also received from Messrs. Tata Iron and Steel Company regarding the number of persons employed and the total production, and from the Indian Mining Association of the monthly totals of actual raisings and despatches.

144. Possibility of Improvement in Statistics.

In connection with the resolutions of the Third International Conference of Labour Statisticians the question of the systematic compilation of statistics of industrial disputes and working class budgets was considered by the local Government. With regard to the former the local Government decided that industries were not at present sufficiently developed, and that there were no strikes or disputes of sufficient frequency to warrant setting up a machinery of the type suggested by the Conference. It was considered unlikely that any officer would be able to collect necessary statistics from the employers' associations or unions without powers being given by legislation and it was doubtful whether employers, especially in the smaller industries of this province, would either be able to or take the trouble to give the statistics accurately.

As regards working class budgets the local Government consider that the collection of a large number of accurate budgets of typical families on scales sufficient to insure accuracy in index numbers would necessitate the employment of a considerable staff under trained supervision involving an expenditure which might be disproportionate to the results; while on the other hand, the employment of a small untrained staff for the purpose of working on a more limited scale would probably not make any material difference in the accuracy of the index numbers as at present maintained.

Although the information relating to labour furnished to the local Government is at present not extensive, it is not considered necessary to adopt any methods for collecting any larger quantity of statistics. Fairly full statistics are already compiled for the two main industrial areas in the Jharia coalfield, and Jamshedpur and the remaining industrial concerns are so scattered and of so varying a type that no result of value would be obtained from the collection of accurate statistics relating to such institutions, and those statistics already collected by the Factories and Mines Departments are probably sufficient for ordinary purposes. At the same time the absence of more complete statistics makes the preparation of a memorandum dealing with labour conditions in the province a somewhat difficult task, though in the opinion of the local Government the present industrial condition of the province would not in the ordinary course of events justify the expenditure of any further sums for the maintenance of a labour office to facilitate the collection and consideration of labour statistics.

145. Nature of Special Investigations Conducted.

(i) Inquiries for the purpose of preparing index numbers showing the rise and fall in the cost of living in Bihar and Orissa were organized in 1922 and have been

continued ever since. The methods adopted are given on pages 5-12 of Bulletin No. 7 of the Department of Industries, Bihar and Orissa, and are summarized thus:—

1. Family budgets were prepared for six centres, and the ratios of money expenditure in these family budgets were taken as "weights" and used as bases for preparing index figures. These bases were multiplied by the prices current during the normal year at that centre (but as no one particular year could be called normal, the normal year was taken as the average of the five years ending 1914). In this manner the normal expenditure of the locality was obtained and was assumed to be 100. Index prices for subsequent periods are obtained by multiplying the bases by prices current in that particular period. The result thus obtained is compared with the normal expenditure already calculated for that centre, and it is expressed in the percentages for the basic period, taking the normal year as always equal to 100.

2. Six centres were originally selected, i.e., Patna, Muzaffarpur, Jamshedpur, Monghyr, Jharia coalfields and Cuttack, and subsequently in 1925 Ranchi was added. Monthly figures for each of these centres are prepared and published in the Bihar and Orissa Bulletins. In the table below an extract from the figures is given showing the mean average at each of the seven centres at which it was reported for the years 1923-24, 1924-25, 1925-26, 1926-27 and 1927-28:—

Centre.	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.
1. Patna	159	163	162	171	170
2. Muzaffarpur	160	174	163	170	171
3. Monghyr	168	165	166	169	167
4. Jamshedpur	186	196	200	201	195
5. Jharia	190	202	198	198	190
6. Cuttack	133	155	159	159	151
7. Ranchi	—	—	188	179	166

3. It should be noted that the figures for each centre only bear relation to the normal expenditure figure for that centre, and do not bear any relation to the figures for other centres.

4. In 1926, in connection with the proposals of the Second International Conference of Labour Statisticians, the local Government considered whether the figures of normal prices on which these index numbers are based were sufficiently accurate, and it was considered that they were tolerably accurate for the classes to which they relate, and might continue to serve for some time longer.

(ii) The results are published in the "Bihar and Orissa Gazette," and are supplied to all important industrial concerns. They are used by Government departments in determining the comparative dearness of a particular locality and in fixing local allowances. It is probable that they are not used to any great extent by industrial concerns for the purpose of fixing wages.

Mr. H. E. HORSFIELD, I.C.S., Registrar of Joint Stock Companies and Trade Unions, BIHAR AND ORISSA.

3. Since the introduction of the Indian Trade Unions Act only three Trade Unions have so far been registered in this Province, e.g.: (1) The East Indian Railway Union, Khagaul (Patna), registered on the 15th March, 1928; (2) The Labour Federation, Jamshedpur, registered on the 28th January, 1929; and (3) The Golmuri Tinplate Workers' Union, Jamshedpur, registered on the 13th April, 1929. The East Indian Railway Union had 25,203 members (all males) at the end of the year 1927-28; the Labour Federation had approximately 15,000 members (all males) at the time of its registration, while no figures are yet available about the last Union. These unions do not appear to be working successfully, and the annual returns due from the two first two unions for the year ending the 31st March, 1929, have not yet been submitted by them in spite of repeated reminders.

THE CHIEF INSPECTOR OF FACTORIES, BIHAR AND ORISSA.

In reply to your letter No. 250—XL.24.L.C.—dated the 22nd September, 1929, I have the honour to state that I have studied the preliminary memorandum of the local Government and find that, except in respect of the several points noted below, the memorandum already includes the subjects on which I might suitably give evidence, and that I am in agreement with the opinions expressed.

2. *Intervals.*—In the answer 50 (i) (b), I agree that the workman's difficulty of obtaining the sort of meal he likes during the mid-day interval often exists where the distance to his home is great and housing is not available near the factory. The possibility of factory dining rooms is, of course, obvious, but it is not so simple here as in Europe on account of caste complications. There is at any rate room for considering whether it would be practicable and fair to oblige the factory-owners to provide (as some do) cooking facilities for such workers.

3. *Suitability of Regulations for Children.*—In connection with No. 73 of the memorandum, I think that a distinction should be made between boys and girls in considering the suitability of regulations affecting children. I think there is at least an arguable case for making it more difficult than at present for girl children to enter factories except in those industries that employ adult women upon industrial processes. A boy entering a factory has the prospect of learning a skilled or semi-skilled craft, but in general a girl has not. If she remains in the factory as an adult it will be as a menial. There are exceptions (e.g., the shellac industry) where women are employed in skilled or semi-skilled work.

4. Further, regarding the employment of children, it appears to me that in this Province, whatever may be the case in others, it would be advisable to consider the question of the employment of children together with the question of apprenticeship. This is beyond the scope of an Inspector of Factories, and I have not got the necessary statistical and other definite information necessary to enable me to say more on this subject than this—I have a very strong impression that state-supervised apprenticeship system in the major industries would be to the advantage of both employer and employed—to the employer because the members of his labour force would have definite crafts; to the employee because, being better stabilised in his occupation, it would be good business for the employer to treat him better than is ever likely to be the case with transitory labour. As is stated frequently in the memorandum, the factory worker to-day has a foot in two worlds. An apprenticeship which would put him definitely in the factory world, while good for the factories, might be bad for labour in a time of industrial depression, might in fact create what we are so far fortunately without, an unemployment problem. But from the point of view of efficient factories and of good conditions for the factory worker while he remains a factory worker, it seems to me that one of the serious obstacles to improvement is the relative absence of the apprenticeship system.

5. The occupation which is probably in the greatest need of apprenticeship, and in which apprenticeship would, I think, yield the greatest results, is that of the factory engineer. The matter is not within the scope of the Indian Factories Act, but as a member of the Governing Body of the Bihar College of Engineering and of the Ranchi Technical School, it seems to me that some of the attention now given to training men for engineering degrees might better be expanded on training a less exalted kind of engineer for whom there is, if I am right, more need in this province.

Mr. W. B. BRETT, I.C.S., Financial Secretary to Government, Bihar and Orissa.

The subjects dealt with are : I.—Recruitment, (6) Recruitment for Assam, heads (i) to (v).

The experience on which this memorandum is based consists of 2½ years as Deputy Commissioner of Ranchi, the principal recruiting district of Bihar and Orissa. I have no experience of conditions on the Assam tea gardens.

(i) I consider that a measure of control over recruitment for Assam is necessary. The aborigines of Ranchi are in great demand on the tea gardens. They are an impulsive race, easily persuaded and apt to take little thought for the morrow, a characteristic which is enhanced by their fondness for drink. For a great many years they have tended to become the natural prey of non-aborigines and of the more sophisticated members of their own communities. The two chief objections to

an uncontrolled system of recruitment are (1) that a labourer who was sent to Assam and wished to return against the will of his employer would find it practically impossible to do so, (2) that labourers could not be traced by their relatives.

It is the latter difficulty which comes chiefly into prominence in district administration. An aboriginal who disappears from his village and regrading whom there is no certainty whether he is alive or dead, is extremely likely to lose the land on which his dependants rely for their living. Again, minor children, especially girls, tend to be recruited without the knowledge of their parents or husbands. Where the girl is married serious difficulties occur, especially among the Christians over the re-marriage of the deserted husband. Even under the present system I have often had to deal with cases where the bread-winner of the family has gone off to Assam leaving his dependants destitute.

(ii) The existing system is based ultimately on the position that no labourer shall be recruited for Assam except by a person who (a) has recently worked on the garden and (b) has personal knowledge of the intended recruit. Condition (b) follows from the proviso, in Section 164 of the Act, that it is a penal offence for any unlicensed person to assist in recruitment. Though abuses occur, partly through the desire of the sardar to earn more money by producing more recruits and partly through the attempts of the employers to make the system give better results than it was intended to do, the system works fairly well and, given adequate supervision, should mean that no one is recruited without an opportunity of ascertaining the conditions at first hand, and that the relations usually know where the recruit has gone.

It must be emphasized that for the district of Ranchi, with its poor soil and increasing population, and liability to famine, it is of supreme importance that in times of difficulty, the population shall be able to find employment in Assam.

(iii) The defect of the Assam Labour Board is that it consists almost entirely of the representatives of the employers. Its personnel is almost identical with that of the principal recruiting organization, an arrangement which hampers its usefulness in the not infrequent cases where the views of that organization as to the forms of recruitment permitted by the Act run counter to those of the authorities who administer that Act. It is fundamentally unsound that a body of this composition should have the power to interfere with the appointment of the local agents employed by the trade rivals of the principal recruiting organization.

(iv) The sardari system is expensive to the employer. In 1927-28 the sardars in Ranchi recruited on the average 1.4 labourers each (excluding dependants). A fair proportion of the sardars abscond or fail to do any recruiting.

The Act, with its rigid prohibition of assistance by non-licensed persons, is exceedingly difficult to administer. The exact point at which assistance becomes an offence is difficult to determine. For instance, the use of propaganda by the recruiting agencies in connection with sardari recruitment is probably illegal. There has been a tendency to do the real recruitment through missionary and similar bodies and to employ the sardar as a figure-head through whom the labourers so collected are enrolled. For a new garden the inutility of the sardari system is obvious.

(v) In my opinion the sardari system is that which affords the least chance of victimization. It ought to secure, and usually does secure the maintenance of communications between the labourer and his home. To meet the requirements of new employers who have no connection with the recruiting district, an alternative system should be provided, but the greatest care is necessary to secure that the existence of the alternative system does not impair the sardari system. It is necessary here to indicate that the sardar is usually an ignorant garden cooly. There are numerous agencies, sometimes of very undesirable character, which recruit labourers for places other than Assam. Once the prohibition against assistance by an unlicensed person is withdrawn, the sardar will buy his recruits from one of these contractors and the whole sardari system will disappear.

Consequently it is necessary that all the agents employed under the alternative system should be licensed, and that the Deputy Commissioner of the recruiting district should have full power to cancel their licences on proof of misconduct and to suspend them, pending enquiry, on a reasonable suspicion that malpractices are occurring.

It would be advisable to keep the two systems entirely distinct, so far as the actual recruitment is concerned, and to provide that the possession of a recruiter's licence does not entitle a recruiter to assist in sardari recruitment.

My reason for requiring that all the agents under the alternative system should be licensed, and not merely a few principals, is that in actual practice such recruiting would be done through sub-agents of quite humble status. Unless such persons were licensed, it would be impossible to prevent the employment of labour contractors of the type which was responsible for the old abuses. Though under the present sardari system and the proposed alternative system, recruits are produced before a

responsible registering officer, it is quite impossible for the latter to verify their antecedents unless he has before him the person who recruited them in the first instance. Even under the present system it is common for recruits who have been recruited under suspicious circumstances to give an entirely false account of themselves at the instigation of the sardar.

THE HONORARY SECRETARY, BEHAR AND ORISSA CHAMBER OF COMMERCE.

In placing its views my Committee begs to draw the attention of the Commission to the position of labour regarding sanitation and education. Their effect on labour is lifelong, and the remedy lies not in tinkering with it by having better sanitary conditions and educational facilities at the factories or in industrial centres only, but in improving the conditions in the villages, without which improvements at places of employment would not be of much avail. Such schemes, unless these be at areas where there are a group of factories or where individual factories employ a very large number of men, would be prohibitive for smaller employers of labour, and put a heavy burden on them.

The Government, so far, has failed to bring about a satisfactory state of affairs in the villages, or to start any comprehensive scheme of improvement along these lines.

The Government itself is a very large employer of labour in its railways, factories, printing presses, mines, canals, public works, dockyards, and other places. So far as the Committee is aware, the terms and conditions of employment are not much better, than is the case with private employers. My Committee begs to submit that the improvements in the conditions of labour should be first brought about in Government factories, so that these may serve as examples and other employers compelled to follow, and labour will also see the better conditions of employment.

Recruitment.

Most of the Industries in Bihar (except the Tata Iron and Steel Company and the coalfields) have their unskilled and a major portion of their skilled labour residing in the locality, within radius of two to three miles of the place where they are situated. Only a small portion of the skilled labour belongs to neighbouring villages or sometimes to Bengal. The number of the latter is slowly decreasing as the local labour is getting trained.

A part of the labour, mostly unskilled, leaves at the time when agricultural operation is in progress in the villages.

The recruitment in industries (other than coal and steel) does not present much difficulty, except in the case of skilled labourers, as competent hands are not available in enough numbers as required in the province. This state of affairs is expected to continue until suitable arrangements are made for technical education here.

Employment agencies do not exist nor has any effort been made to organize same.

Unemployment.

It is very seldom that skilled labour is unemployed for any length of time. It is only the labour which is released after the agricultural seasons that remains unemployed. There is also another big class of men, the products of the prevailing system of High School education, who pass unemployed lives for many years after they leave their schools, in the hope of finding a clerical job in some Government or other office, and failing that, some take to patriotism or other pursuits, which barely maintains them. If the State makes some arrangement to provide for them a short training in some skilled trade which may enable them to find employment in the prevailing industries of the province, much useful work would be accomplished both to the advantage of these persons as well as the State. The opening of night classes in chosen centres giving theoretical training in technical subjects will be useful.

Staff Organization.

The Managing staff is generally selected from persons who have some general business skill or employees having a general education. There is no arrangement for any commercial college in this province which is a long felt want. Out-turns of the newly started Engineering College are few and have greater aspirations as regards their pay than what can be offered by the smaller concerns generally found here. Their practical knowledge is nil of any particular trade, while they want more wages than a skilled workman who generally has no theoretical training.

The evolution of a Supervisor is a matter of long perseverance and exceptional intelligence. He starts from the unskilled worker or apprentice, becomes skilled in course of several years to a decade, according as he attends to his work with care, and the degree of his intelligence, and if he happens to do exceptionally well during these processes, he is then a supervisor. This time is only lengthened by the absence of primary education amongst the working classes.

Housing.

It is mostly a few skilled labourers and clerks (in each factory) who are drawn from outside the locality who require housing accommodation. Outside workmen and office assistants generally live alone without their families and are generally allowed to live on the premises, or their quarters are arranged for them in the neighbourhood, failing it, rent allowances are paid.

No Government or other public agency in the province has been heard to have cared for the erection of houses for industrial workers. Private venture is also wanting.

The workers are satisfied with the accommodation provided or rent allowance paid to them, which is about 5 per cent. of their wages. For this they usually get an accommodation which is above the standard of their native houses, except when in towns, where they cannot get so much open air. As the industries do not command very large capital, nor do they make very large profits, no radical action in this matter is possible. The State should encourage the employers by acquiring land near the mills and leasing it out to them on a long term hire purchase system for gradually erecting buildings of cheap but sanitary types. In addition to the above mentioned acquisition of land, concerns having a nett income of less than half a lakh may be encouraged by a provision in the Income Tax Act to the effect that all expenses towards the erection of quarters of a type approved by the Government shall be considered as regular expenses and shall be deducted before reaching the amount of assessable income, and also by exemption from Municipal taxation.

Health.

23. No separate figures of mortality, adult or infant, and birth rate, among industrial workers is available.

Working conditions are on the whole good both at work places and at quarters provided. It is much better than the workers can find in their native places. But owing to the lack of education among them in the elementary rules of hygiene, they do not take much care of their diet, neither observe cleanliness.

Medical facilities are available in towns, where there are hospitals and dispensaries owned by the Government or local bodies, which they use, and in serious cases the employers make special provision. In mills situated far from towns, it is the Ayurvedic physician or the homœopathic medicine box of the employer, that is usually to hand.

Women doctors, trained midwives or dais are rare in this province and a beginning seems to have been made by the Government and local bodies. This want may only be removed gradually by a rapid process of female education and facilitating arrangements for training intending Indians as midwives or dais in the local hospitals, receiving aid from funds of the Government or local bodies.

26. Sanitary arrangements at work places as regards latrines and drinking water, bathing and washing are fair. Almost all the mills have got good wells for the use of the employees. Usually the employees in their quarters arrange for their bathing and drinking water from a neighbouring river or wells which are found in abundance everywhere.

27. Referring to the matter of health the following extracts deserve consideration :—

“Public health with its two main functions of preventing disease and increasing the welfare of the individual is of fundamental importance in the industrial development of any country.”

"The recruiting centres of Indian labour forces are for the greater part rural areas, where public health conditions are not a whit more advanced than they were when the etiology of all the important communicable diseases of the tropics was enshrouded in mystery."

"Malaria and hookworm infection are almost certainly the two most potent causes of inefficiency."

The above extracts are from the views submitted by Major F. Norman White, C.I.E., I.M.S., M.D., to the last Industrial Commission. Referring in the same paper to malaria he says :—

"As has been indicated the general incidence of this disease throughout the country is a matter of grave moment to all connected with industrial enterprise."

"A large part of the relative inefficiency of Indian labour is due to removable pathological causes."

The following is the view of the members of the Industrial Commission (Report, page 191).

"It is clear that the improvement of the health of industrial workers can not be discussed separately from the questions of public health generally, if only for the reason that a large proportion of Indian Industrial labour moves periodically from village to city and back again."

The following extract from the Annual Report of the Public Health Department, Bihar & Orissa, 1927, may be considered.

"Whereas fevers, of which malaria is the chief, are more prevalent in rural areas, where the facilities are greater for the breeding of anopheline mosquitoes, and where the economic condition of the people is frequently not so good."

"There investigations reveal a high spleen index, and indicate the prevalence of malaria in most districts of the province. Very little has been done up to now in the province to control and check malaria and evil effects of this disease do not appear to be generally appreciated."

Malaria in itself is not the cause of high mortality but by reducing the vitality and resistance of its victim it indirectly conduces to a high death rate from intercurrent, or subsequent attacks of more fatal and virulent diseases.

In addition, malaria produces a disinclination to work the effects of which are more difficult to estimate.

Later on in the same page the report says that the death rate from fevers is 16·4 against the total death rate of 25·1 per cent. in this province.

On page 258 of "India in 1927-28" in a diagram explaining how each rupee of expenditure was made in India in 1926-27 (Provincial and Central together) we find :—

Expenditure in military service	..	..	..	0·27
Railways .. .. .	..	..	..	0·13
Education .. .. .	..	..	..	0·05
Public Health .. .. .	..	..	..	0·01

It will be seen from above that spending of money by employers for medical aid and facilities at the centres of employment will not be of much benefit and it is necessary that the State should spend more money in Public Health, especially for the eradication of malaria which is causing so much havoc in the rural areas and thereby spreading infection and inefficiency among the industrial workers; and dissemination of education in elementary rules of hygiene and cleanliness amongst the rural, urban, and industrial population by means of magic-lantern lectures and cinema through the Department on a more extensive scale.

VI.—Education.

The problem of education of present and prospective labour is connected with the general education of the province. As the factories are scattered all over the province, and there are no industrial towns worth the name, and as the small number of the employees working in mills, as a rule, do not like to remove their family from the native place, any scheme of education near the factories is not expected to benefit the employees for whom it may be designed; the real need is a universal free and compulsory education throughout the province. The present state of illiteracy is appalling and the speed, at which the work is going on, quite unsatisfactory. In 1872 the literates numbered in India 9·2 millions and in 1921 they were 22·6, i.e.; there was a difference of 13·4 millions in 49 years.

Taking the population same as at 1921, and taking the education policy same and the rate of increase in expenditure on education going on as it did from 1872 to 1921 (which unfortunately is not hoped) it will take, by a plain calculation, to reach literacy even to 90 per cent. a little over 967 years. That is, to reach to the extent of literacy prevalent in many other countries by the present policy and rate of increase in education expenditure, we should wait for the year 2830 A.D. Should the Government be content with this or should it take steps to expedite things.

The position regarding education of female population is worse still.

Cost of Elementary Education.

We have quoted before that out of each rupee of expenditure of the Central and Provincial Governments together, education received 0·05.

"Few will be found to deny that lack of education, especially among the masses, is one of the main roots of India's ills, social, economic and political, and that her comparative backwardness in so many spheres of human activity is traceable to this ultimate cause." ("India in 1927-28," page 362.)

Therefore we are of opinion that a scheme of Compulsory Primary Education should be formulated as soon as possible by the Government of India, and taken in hand gradually by Divisions or other areas as expedient.

Further, we recommend that Drawing and Physics be made compulsory subjects in all the classes of Middle and High Schools. For the Upper Primary classes Drawing be made compulsory. No reasonable objection is expected against the introduction of drawing as it already exists in the High Schools though nominally. There is already too much literary or "clerical" education, it would but be a compensation for neglecting to build up a technical bent of mind of the students, which is necessary in the interest of labour and industry and against unemployment.

VII.—Safety.

45. Most of the accidents in factories occur through the negligence of the workers.

49. The inspection of the factories is carried on very carefully, and the employers comply with the suggestions and requirements with the least possible delay.

VIII.—Workmen's Compensation.

51. (v) There has been nothing which calls for compulsory insurance of compensation by employers, and the smaller factory owners should not be burdened with compulsory insurance until more experience has been gained.

Hours.

57. There are certain industries here like the oil-milling by ghani system, in which the worker, though on duty for instance for six hours, has to work about four hours only. Such industries suffer much by the weekly and daily limit now in force. For such industries we suggest a schedule should be prepared and approved by the Government, after investigation by the Industry Department of the total time of actual work per hour during which the workers actually work and such actual hours of work be taken for purposes of calculating the hours of weekly and daily limit, instead of the nominal hours of attendance, as done at present.

Unless the Commission is sure that industries can afford to bear this strain of reduction in the hours of work, it should not make any recommendation in this behalf, as it may likely result in creating propaganda for such reduction.

59. In view of the present circumstances of industry in the province, and the low education and efficiency of the labour, we do not think any reduction in maxima possible.

86. Owing to the regulation of child labour, we notice that employers have begun to avoid taking children under 15 years of age. This is sure to affect the training of labourers, as long as there is no arrangement for the compulsory education of children by the State. In the meantime, we suggest (i) that certification of age be made more easy, and every doctor holding M.B., L.M.S., or equal degree be declared competent to certify the age and fitness of a child for work in a factory, and (ii) the liability of an employer for compensation to a bona fide child apprentice be abolished. These will improve matters much.

XII.—Wages.

97. There has been a general rise in wages owing to high prices since the war, and there is no sign of return to the former level.

99. We do not think conditions are such as to necessitate legislation regarding prompt payment of wages in this province.

XIII.—Efficiency.

116. For the efficiency of the workers, we think improvements suggested under the heads of Health and Education and an arrangement to keep liquor shops as far as possible (about two miles) from a mill or group of mills employing at least 100 workers will be much helpful.

Mr. ARIKSHAN SINHA, General Secretary, the Bihar Provincial Kisan Sabha, District Muzaffarpur.

The Bihar Provincial Kisan Sabha represents the interests of the peasants and workers of Bihar. Labourers are drawn from agricultural classes. There is no special class of labourers in Bihar. Bihar supplies labour to Bengal and Assam. Some labourers even go to Burmah.

I.—Recruitment.

1. The origin of labour lies in the poverty of the people. Those who have not got sufficient lands to maintain their family members take to labour and seek employment in the agencies mentioned above, and a very large number go out every year to Assam and Bengal for employment there. (i) More than 50 per cent. of the labourers leave their homes temporarily and go out for employment elsewhere. (ii) Causes are poverty and want of sufficient work at home. (iii) No changes noticed in these years. Labourers go out as usual for employment elsewhere.

2. Labourers return home after six months. (i) Some come back after a year or two. They never lose contact with their villages. Their wives and children remain at home, to whom they send their earnings by money orders. About 75 per cent. of the labourers who go out return home after a year.

(iii) In my opinion the Government ought to create public employment agencies throughout India to meet the crying need of employment. As a member of the Bihar and Orissa Legislative Council I had drawn the attention of the Bihar and Orissa Government in 1926 to tackle the problem of unemployment; but nothing has been done by the Government. We have got a very large number of educated people who are unemployed. The Government ought to take up this question seriously soon and try to remove it, otherwise much discontent will grow against the Government. The unemployed persons will be loyal citizens when they get work for supporting themselves and their family members, otherwise they will turn seditionists against the present system of government existing in India. There is already a cry for Independence by young men inasmuch as they hope that when India will be independent they will get sufficient work for their livelihood. In my opinion the Government ought to start big commercial and industrial enterprises in India to meet the cases of unemployment. Indian boys should be taught skilled labour such as motor car making, match making, lantern making, and other such arts which are available to English, Japanese, and American boys. Industries based upon scientific improvements ought to be started.

4. Some labourers who go out to Burmah or Assam do not return home. They neglect their wives and children and take new wives at Rangoon or in Assam, and thus lose their castes and are cut off from their families for ever. In my own locality many labourers went to Rangoon and Assam. Some died there. Some married Burmese women and became outcasts and never returned. Now we do not advise these people to go to Burmah or Assam, as their migration has made many villages as so many deserted villages. Besides this the treatment of labourers in tea gardens in Assam is far from satisfactory. They would like to starve at home rather than go to Assam for employment there, on account of the brutal treatment meted out to these people by the tea planters in Assam.

6. Bihar supplies a large proportion of labour in Assam tea gardens. Every day you will find Katihar Railway full of labour recruits for Assam tea gardens. The treatment meted out to the labourers in Assam is most brutal and inhuman. They

are not supplied with healthy quarters, no good drinking water, and consequently they catch malarial fever and kalazar fever and die like rats. The Assam Government does not care much for the welfare of the labourers, and the Bihar Government has never raised its voice against the ill-treatment of Bihari labourers in Assam. Labourers who come back from Assam tell very woeful tales about their treatment in tea gardens. I have no idea of Assam Labour Board, but I would suggest that there should be a sufficient number of labour representatives on such boards to safeguard the interests of the labourers. A few years ago many thousands of tea garden labourers left work in disgust and walked on foot to Chandpore, and these took trains for their respective home districts.

7. Unemployment is very keen in India. In England the Labour Government is doing its level best to remove unemployment because the British Government in England is responsible to the people. But in India the Government is responsible to none, and I doubt very much whether they are responsible to God even. . . . I am the President of the B.B. Collegiate School, Muzaffarpur, and have been connected with school and college for more than twenty-one years. I find that the distress of unemployment is greater among educated people than among uneducated people. Uneducated people can earn their living by working as coolies, but educated people have no sources of earning livelihood. I would, therefore, urge upon the Commission that this is the most important subject requiring immediate solution.

II.—Staff Organisation.

15. Nearly cent. per cent. work under the P.W. Departments and the local bodies are given to contractors. The railway company also gives a major portion of their works to contractors such as earth work and building works and bridge works.

Contract system works throughout except in workshops and mines and irrigation works. Big contractors obtain contracts of big businesses and make a profit and give the work to sub-contractors. The P.W.D. officers exercise control over P.W. works and railway officers over railway works, and similarly the officers of local bodies on their works. In my opinion the contract system has got the effect of having a work done soon.

III.—Housing.

22. Some cases of immorality have been heard in Assam tea gardens and in mining areas in Dhanbad. No such complaint has been heard either at Jamshedpur or at Jamalpur. By the employment of labourers on adequate wages better men will be drawn, and by their association moral tone may improve. The only suggestion that appears feasible to me is that women workers should not be employed in mines, and if employed at all they should be given work separately. The owners of mines should keep vigilant eyes on the morality of their men and women workers.

IV.—Health.

23. In rural areas the health of workers is generally good. They breathe pure air and drink pure water, and thus preserve their health. But the health of workers suffers much in mining areas. In Assam tea gardens labourers generally catch malarial fever and Kala-azar, and mortality is greater there.

(iii) Conditions of workers at home in rural areas are better. At workplaces also the general condition of health is good except in mining areas, where health suffers on account of underground work. (iv) Diets of workers are generally poor; but there is no surprise in it. India is a place of poverty. Here more than 50 per cent. of the people cannot get both meals a day in a proper way. A very large number of persons in India starve every day on account of chronic poverty. (v) Physique depends upon diets. If labourers get sufficient meals they will be physically strong, but if less nourishment and food they will be weak.

24. I have not noticed special arrangement for medical facilities provided by employers anywhere. There are medical hospitals at Jamshedpur, Jamalpur, and Dhanbad. They are run by local bodies and the Government. In other labour employing centres no such facilities exist. Labourers go to these hospitals for treatment. No other agencies provide medical facilities.

27. (i) Such Boards exist only at Dhanbad and Jharia to look after the general health of people in mining areas. In no other places such Boards of Health exist. There is some official supervision here. (ii) There is no arrangement of

official supervision for indigo and sugar plantations inspection in North Bihar. In South Bihar there is no indigo or sugar industries. (iii) In mill and other industrial areas no such arrangement exists.

29. Industrial diseases prevail only in mines and in Assam tea gardens. I have already said that malaria and Kala-azar prevail in Assam. Cholera, malaria and other tropical diseases prevail some time, but not always in the year. Cholera commences from April and lasts till June. In some years it continues up to July. Malaria commences in North Bihar from September and lasts till December.

30. Sickness insurance is not practicable. (iii) I would suggest the engagement of Ayurvedic and Tibbi physicians at all the industrial centres. Indian medicines will be much more acceptable to labourers than western medicines. Besides this the Indian medicines will be cheaper. I, therefore, strongly recommend that Vaidas and Hakims should be engaged to treat labourers according to Ayurvedic and Unani systems.

31. No scheme for allowing maternity benefits exists in Bihar. . . . In 1926, while I was a member of the Bihar and Orissa Legislative Council, this matter was brought up before the Bihar Council. But the Bihar Government opposed this scheme on the ground that this was an all-India subject and fit to be dealt with by the Legislative Assembly. Although the motion was carried the Government has done nothing in the matter since then. . . . (iii) I would strongly support legislation on the lines suggested by Mr. N. M. Joshi, and on the lines of the resolution adopted by the Bihar Council in 1926.

V.—Welfare.

36. In Jamalpur a high English school exists, managed and controlled by the railway company. Such schools exist at Jamshedpur and Dhanbad also; but what is most required is primary schools meant for workers and their children only. Some night primary schools should be opened for adult workers and half-time workers.

37. I am in favour of making provision for old age and premature retirement; so far as I know nothing exists at present. Something like provident fund system at Jamshedpur, Jamalpur, Dhanbad, Dehri on Sone and other railway workshops should be adopted. But this system is not practicable anywhere else.

39. It is extremely desirable that there should be a Statutory Miners' Welfare Fund.

VI.—Education.

41. There is no arrangement for Industrial and Vocational training for workers. Of course, there is a Mining Institute at Dhanbad, but that is for training of educated men and for employment as officers in mines. There is one Technical Institute at Muzaffarpur, in North Bihar. I have myself been several times in it. I have discussed the future prospects of students reading in that school with the teachers of that school. They candidly admit that the future prospects of their students are dark and unknown. Necessary livelihood-earning arts are not taught in that school, such as, for example, motor-car repairing and fitting new motor-cars, and other similar arts. In my opinion the existing arrangement is unsatisfactory. It needs much improvement. If the Government really wants people to be trained in such arts, then boys should be trained in Jamalpur workshops and other railway workshops, and should be taught how to make and repair railway engines and other necessary materials required for railway service. Some boys should be taught in the workshop of Messrs. Arthur and Butler and Co. in the art of fitting and repairing motor-cars and other engines.

42. If industrial education be given to workers, then such workers will earn higher wages and remuneration, and with the increase of remuneration and wages the standard of living of workers will certainly improve. The standard of living of workers will certainly improve. The standard of living depends upon the means of a person. If a person is ill-paid he leads a very miserable and starving life. But if he is paid handsomely his standard of living is higher. I must frankly confess that the earning of average British labourers is much higher than ordinary educated clerks in Government offices and, therefore, the standard of living in England is much higher than that obtaining in India. It is too much to compare the standard of living of Indian labourers with those of British labourers. British labourers are adequately paid for their labour and there is a large number of elected members of Parliament to look after their interests. In India, labour has not got elected representatives in Councils to look after their interests.

IX.—Hours.**A.—Factories.**

55. In indigo and sugar factories, labourers generally work for six hours for half-day wages. In special seasons they have to work for whole day. In that case a labourer has to work for ten hours a day. But in cigar and Indian liquor factories labourers have to work for the whole day generally at the rate of ten hours per day.

56. In indigo, sugar, and cigar factories, labourers have to work seven days a week. They have no holiday for rest.

57. Sixty hours' restriction is good from the point of view of workers and it may not affect industries at Jamshedpur or Jamalpur railway workshops, but it will be impracticable in indigo and sugar factories.

58. So far as daily limit is concerned there is no harm if time limit is fixed for half-day work and whole-day work, but I must state that a labourer has to do nearly two-thirds work in half-day time and for this he is paid two-thirds of the whole day.

59. There is no harm if reduction in maxima is made at Jamshedpur, Jamalpur, in cigar factory and in Indian liquor factory, but in other factories it is not a practical scheme.

60. (i) In big workshops and factories generally two-hour intervals are allowed for meal times. (iii) Generally between 11 a.m. and 1 p.m. (iv) So far as I know no holiday is given in any factory.

61. No rest day allowed.

B.—Mines.

63 to 72. Generally, a labourer has to work for 10 hours a day in mines. There is no holiday or rest day. I am of opinion that in mines a labourer should work for 6 days per week and for not more than 60 hours a week. I would advocate the making of statutory provision in mines fixing daily limit, weekly limit, and holidays for the benefit of labourers. Working in mines is much more difficult than in other factories and workshops.

X.—Special Questions.**A.—Factories.**

85. No double employment exists in factories.

86. There is no arrangement for training of young adults and facilities for apprenticeship in factories in North Bihar. No factory exists in South Bihar.

B.—Mines.

91. In my opinion women should be excluded from working in mines. Underground works in mines affect the health and morality of women workers. Withdrawal of women from mines will not affect the industry but it may affect the economic conditions of women workers. If women be allowed to work in mines vigilant eyes should be kept on their health and morality. When these women workers are pregnant they should not be allowed to work in advanced stage of pregnancy and adequate maternity allowance should be given by mine owners before and after child-birth.

XII.—Wages.

96. (i) Prevailing rates of wages in factories in North Bihar per day for each labourer was from 1 anna to 6 pice a day, but since the Bihar Provincial Kisam Sabha took up the question in 1918 the rates have increased. Besides this the propaganda of Mahatma Gandhi for peasants and workers have brought European planters and factory owners to their sense of responsibility and so some factories now pay even at the rate of 3 annas per day. The same is the case now with sugar industry also, but the payment has increased only in some factories and in other factories low payment still continues. (ii) In agricultural areas, labourers are paid in grain. Both the whole-day and half-day labourers are given breakfast, which is called in the vernacular Pani Piayee, that is for taking water. The rate is usually 3 to 4 chhattaks per labourer. Then the half-day labourer will be given

2 kucha seers, that is one-quarter of a Pucca Passeri as wages and half a kucha seer food for meals. Thus the average earnings of a half-day labourer varies from 2½ to 3 annas per day. As for the whole-day labour a labourer gets ½ seer for breakfast, 1 kucha seer food for mid-day meal, and 3 kucha seers for wages for family members. This comes to 4 to 5 annas per day. But there are special classes of labourers employed by agriculturists, viz., blacksmiths and mallahs. The former is employed for making implements of agriculture, ploughs, and wooden materials for houses, and the latter are employed in thatching houses. These labourers are paid 6 annas a day besides mid-day feeding amounting to 1 kucha seer for food.

98. The question of sending amounts to villages arises only in the cases of labour at Jamalpur and other E.I. railway workshops, and at Jamshedpur and Dhanbad. At these places labourers spend half their earnings for their own maintenance and remit half their earnings home for their wives and children.

100. In works under Public Works Department and Local Bodies and also building and earthwork in railways it is contractors and sub-contractors who employ labourers and make payments. As regards extent I may say almost all works are done through contractors and sub-contractors. Labourers are paid from 4 annas to 4½ annas a day. The effect of such payments is that the contractors and sub-contractors make large profits out of the works done by labourers.

105. Minimum wages may be fixed in industrial areas and factories, but it is not practicable in agricultural areas where payments have been made in grain by immemorial custom.

110. Labourers are not permanent servants. Hence no question of leave arises. If he is absent he will not be paid for that day. No employer encourages leave for which he will have to pay.

111. I would welcome fair wages clause in public contracts given to contractors and sub-contractors under the Public Works Department, Local Bodies, and Railways.

XIII.—Industrial Efficiency of Workers.

112 and 113. Indian workers have much improved in efficiency in industrial works. If Indian workers be properly trained in skilled labour they can successfully compete with any foreign workers.

114. In my opinion comparisons are affected not by health and physique or standards of living, nor of climate, but by the opportunities to use scientific machinery and plants. . . . But of course some education is necessary. In England primary education is compulsory. In India it is not. If any member brings this subject before any Council the Government of the day stands in the way. Therefore the fault lies not with the Indian workers but with the Government.

XIV.—Trade Combinations.

122. (iii) The State is as much indifferent and unsympathetic towards labour unions as the private employers. The State looks down with absolute contempt towards these labour and workers' organizations. Since 1920 the Bihar Government has never cared to nominate any representative of the peasants and workers to the Bihar Council, but on the other hand, the Government has been nominating big capitalists and landlords as members. Unless and until universal franchise for adult persons is not introduced the cause of the peasants and workers will suffer much.

XV.—Industrial Disputes.

123. . . . There was an upheaval among indigo plantation labourers in Champaran a few years ago. But for the first time the workers of Champaran were crushed by prosecutions and persecutions. In the second time Mahatma Gandhi intervened and some settlement was brought about. By this settlement the workers of Champaran in indigo plantations have been to a certain extent benefited. By constant strikes and lock-outs there is much loss to industry and to workers also.

124. (vi) In my opinion there ought to be Industrial Courts, Trade Boards, and Joint Industrial Councils as they exist in other countries. There is no reason why these Boards and Councils should not be created for Indian workers.

126. The attitude of the Government towards trade combinations and industrial disputes is wait and see. Unless there is an imminent danger of breach of peace the Government will not intervene. The Government intervenes only with Law and Order formula. If the Government takes into its consideration the cases of millions of dumb and innocent workers then nothing is expected to happen. But when matters grow worse and the followers of Mahatma Gandhi intervene on behalf of the poor workers then the Government also intervenes and settlement is made between the followers of Mahatma Gandhi representing the workers and the employers and the Government.

XVI.—Law of Master and Servant.

127. No effect has been produced by the repeal of Workmen's Breach of Contract Act so far as the interests of the workers are concerned. The repeal has neither harmed nor benefited the labourers.

132. . . . I have visited all the five divisions of the Province of Bihar and Orissa but I have not come across any use being made of the Employers' and Workmen's Disputes Act.

XVII.—Administration.

133. So far as I know the Local Government and the Provincial Legislature has done nothing in this matter. Whenever this question is taken up in the Provincial Legislature the reply of the Government is that this is a central subject. During my time as a member of the Bihar and Orissa Legislative Council when labour questions were taken up by some Hon. non-official members, the reply of the Government was that this question should be dealt with by the Central Government.

138. Workers are not aware of factory legislation. In my opinion vernacular translations of the factory legislation should be distributed among workers to acquaint them with factory legislation.

139. (i) So far as I know there is no staff of the Government to inspect indigo factories. In other matters it is the Director of Industries who inspects some factories. The staff for this purpose is not adequate. . . . (iii) The administration is neither vigorous nor efficient. In my opinion it is useless and not worth the money spent by the Government over it. . . .

140. In mines at Dhanbad there is an Inspector of Mines. There the staff is better than in ordinary industries and inspection there is much more efficient than in any other industrial centre. The reason is that there is always danger to human lives by working in underground mines. . . .

XVIII.—Intelligence.

146. Future developments of industries and the improvement of the conditions of workers depend upon the recommendations made by this Commission and the action taken on such recommendations by the Government. In my opinion industries should be better developed in India and should be helped and patronized by the Government and the conditions and wages of labourers should be adequately improved. In foreign countries where the Government is responsible to the people it is the Government who gives aid to new industries and patronizes them. But in India it is impossible unless and until the Provincial Governments and the Central Governments are made responsible to the people of India. This touches constitutional question. But it is necessary for the future development of India and Indian industries. So unless and until India attains self-government of the types enjoyed by the self-governing Dominions of Canada, New Zealand, and Australia, it is impossible for India to develop its industries and remove the long-felt cry of unemployment. Hence I would recommend the adoption of the Nehru report by the British Parliament. . . .

KODARMA MICA MINING ASSOCIATION.

I.—Recruitment.

1. (i) The major portion of the labour employed in mica mines and factories is local, being partly agricultural and partly industrial. There is no great migration.

2. (i) Local labour returns to their villages daily. The Purdesi labour returns to their homes about once in a month. (ii) About 50 per cent. of the whole labour

employed is permanent. The other 50 per cent. is partly agricultural and partly industrial. They only abstain from working in the mines during transplantation and harvesting.

3. (i) No definite methods of recruitment.

7. (i) There is practically no unemployment in the Mica mining area of the district. Unemployment to a certain extent has been caused by the prohibition of women labour in the mines under Government Notification No. M.1055 of 1929.

(iii) Allowing the same privileges for women labour to work underground in the mine as in the coal mines.

8. . . . (iii) General absenteeism is practised more or less during agricultural operations and after pay day : (a) At times want of labour in the mines and factories is keenly felt due to cultivation, marriages and festivals. (b) Yes, seasonal. (c) About three months and about Rs. 45.

II.—Staff Organisation.

10. Every management or firm is divided into divisions with a divisional manager. The mines of that division are managed with the help of a number of competent persons. The manufacturing work is done in the factory of each firm.

11. From the most capable in the staff.

12. (ii) There are ample facilities for promotion of workmen provided they are intelligent and willing.

13. Very cordial. The general manager of the firm can always be approached by even the meanest of labour with ease.

15. (i) Mica is given on contract for the purpose of splitting and cutting. Raising and sinking contracts are sometimes employed in the mines. (ii) Splittings are issued to sub-contractors in some cases. (iii) Weight and quantity is checked when the splitting is returned. (iv) Increased output of splittings on the one hand and provision of work for many Purda women and girls.

III.—Housing.

16. (i) Housing is provided by employers for Purdeshi labour (i.e., those coming from a distance), and quarters are provided for supervising and clerical staff, darwans, and menials.

18. (i and ii) Temporary houses are built near mines for the use of the workers.

(iii) They obtain their water supply from rivers and streams for washing. Drinking water is supplied from wells.

IV.—Health.

23. . . . (iv) Diet consists generally of rice and dal and bread and mohua, mokai and chattu. It is regarded as fairly wholesome.

(v) Labourers both male and female are generally of good physique, with a fair amount of power of endurance. . . .

24. (i) One hospital started and managed by the largest firm in mica, in Domchanch. (ii) There is a Government charitable dispensary and hospital in Kodarma, where the mica mining firms make liberal contributions towards its upkeep. (iv) A midwife is employed in the local hospital.

25. (i) Labourers used to fight shy of hospitals, but now are gradually acquiring the habit of undergoing treatment by doctors in cases of disease. (ii) Very scarcely.

26. (i) Unnecessary in mines but are provided in factories. (ii) Pure drinking water is supplied to the labourers from wells. (iii) In tanks, rivers and streams.

29. (ii) There are periodical outbreaks of cholera in some parts. Arrangements for eradicating the evil and checking it promptly are not always satisfactory.

IX.—Hours.

A.—Factories :—

48 hours a week, working eight hours a day for six days in the week.

59. Maxima should not be reduced.

60. (i) (*a* and *b*) As work in the factory is not strenuous no intervals of rest are needed. Work generally commences at 9 a.m. and closes at 5 p.m. Labourers take their morning meals at home and again in the evening. (ii) Does not suit mica factories. (iii) Present system most suitable. (iv) One day in each week of seven days and on days of local festivals.

B. Mines.

63. (i) 48 hours a week working eight hours a day for six days in the week both by custom and agreement. (ii) Same as above; 54 hours underground and 60 hours aboveground, including overtime.

64. Six days in the week.

65. Good, both on workers and on the industry.

66. Maxima should not be reduced.

67. Suitable.

69. (i) As work in mica mines is not incessant, labourers automatically get intervals of rest after blasting. Miners or drillers get greater intervals of rest during removal of debris. (ii) They take their meals during morning before starting for work and take tiffin during rest intervals. (iii) One day in a week and also on days of local festivals.

X.—Special Questions Relating to Women, Young Adults, and Children.

A. Factories.

81. Not in force and not at all suitable.

84. Children not engaged. (i) Nil. (ii) Minimum age thirteen years and maximum sixty.

86. Young boys and girls are taught to learn the work of splitting and cutting.

87. Instead of being dismissed they are promoted and get an increment on reaching full age.

B. Mines.

90. Good.

91. Women should not be excluded. (i) Regulations for prohibiting the employment of women underground in mines are not at all suitable. (ii) Employers are having great hardship in replacing females with male labourers and the cost of production has increased 50 per cent. (iii) Has caused unemployment amongst women, and there is great hardship amongst them. (iv) Gradually, if considered necessary.

XII.—Wages.

96. (i) Skilled labourers in mines average seven annas a day, unskilled labourers (including women, girls and boys above thirteen) four annas a day. Male labourers in factory average eight annas a day. Female labourers in factory average six annas a day. (ii) wage level is lower than in the industry.

106. (i) No fines.

107. (i) Wages are paid by some firms weekly and by some fortnightly. (ii) Within a week after completion of period of payment. (iii) Not required. (iv) Wages can be claimed any time by labourers and are always paid.

110. Leave taken on all local festivals and marriages and Sradh ceremonies.

XIV.—Trade Combinations.

117. (i) An organisation of mica miners, under the name of Kodarma Mica Mining Association is in existence. The principal mica mining firms are its members.

N.B.—Substantially the same information was given in memoranda submitted by—

The General Manager, F. F. Christien and Co., Ltd., Domchanch.
Mr. F. Lethorn, Superintendent, The Chota Nagpur Mica Syndicate, Kodarma.
Messrs. R. K. Sahana and Sons, Kodarma.

FATHER LIEFMANS, RANCHI (endorsed by Dr. L. Van Hoek, S.J.,
Bishop of Ranchi).

The labour of the Ranchi District is found chiefly in the tea plantations—in the country called by them *Bhotan*, i.e., the tea gardens of the North of Bengal and also in *Assam*.

Next in importance is the stream of emigrants leaving about October–November for Calcutta and the surroundings, Santragachi, Howrah, Matiabruz, Titaghar, Serampure, etc. They are in demand for earth work, garden digging and so on.

A few go to Asansol and Jamshedpur.

Some also go to do forest work for the Government in the Andamans, and others go to the mines of Raipur in Gangpur State.

The labour of Ranchi District is mostly unskilled.

I.—Recruitment.

1. (i) The last census showed that out of 13 lakhs, inhabitants of Ranchi District, 3 lakhs were enumerated in the tea gardens of the Dooars and Assam.

From September, 1928, to September, 1929, the Tea District Labour Association alone received 23,000 for the Dooars, 18,000 for Assam.

(ii) The cause of emigration is poverty—the soil is poor and the pressure on the soil increases yearly so that want alone is the sufficient cause of emigration.

2. (i) Generally, the labour comes back after one year, although about 3 per cent. leave the country for ever and settle in the neighbourhood of tea gardens.

4. Family life often suffers from emigration—(a) Young girls, unmarried, are enticed and disappear among the mixed population of the gardens; (b) Married girls are enticed by grand promises and are often lost to their husbands; (c) Young men, the props of an old couple, are taken away and leave their parents in poverty.

6. Assam not proving as attractive as the Dooars, the sardar (recruiters) use sometimes illegal means to obtain labour. The greater distance of Assam from Chota Nagpur and former abuses have contributed to render Assam less popular than the Dooars—a runaway boy or girl is easily found in the Dooars, but in Assam there is often no hope to discover runaways.

Agreements are sometimes not signed in Ranchi but in the tea estate of Assam. This way of acting seems to diminish the freedom of the coolie—he might easily be induced to sign on for three years out of fear of compulsion. The agreement should be signed before starting to avoid any suspicion of undue pressure.

Young girls (married or unmarried) when recruited for Assam against the will or without obtaining the consent of the parents or husbands, are taken by devious ways to the depôt and are often passing in the open with the sardar who may easily, under the circumstances, commit immoral actions with these girls.

Sometimes, too, the better to avoid pursuit and detection by the parents, one sardar passes on his victims to another and this one again to another (sardar) so as to render it difficult to trace the fugitives.

It is a common thing for a sardar to change the names of his victims and to declare them his near relations. When the girl or boy has reached Assam, the planters are rather loath to send them back, as by doing so they lose the fruit of the recruiting expenses and have to pay the journey back. It should be made illegal for sardars to supply alcohol to intended victims. No depôts should be allowed except in towns near a railway station; depôts not so situated are not easily supervised and runaways or illegally recruited people cannot be recovered.

Inspection of depôts should be frequent and minute, even for the depôts where the Dooar labour is sent, else morality will suffer. A depôt keeper should not be allowed to supply his recruited labour (men and women) with alcohol; for instance, one or two hundred coolies have to wait for a train, the gentleman in charge orders his subordinates to fetch liquor, these force the liquor on the coolies. Then the gentleman, and perhaps his wife and children, come out and sit in the verandah, the coolies are fetched and made to dance and the gentleman enjoys their antics. Then the coolies are sent back, but better draw a veil on what happens at night. This incident is not supposed to be a general occurrence, but an extreme example—an exceptional incident.

(iv) No communication is allowed between the missionary residing in Chota Nagpur and the planters, so that the missionary cannot direct his intending emigrants on an estate where they will be happy and remain together.

This is a great defect of the law. A missionary is bound to care for the moral and spiritual welfare of his people, and with the present Act he is not allowed to assist his people and is left helpless when their people are taken to different estates or to estates where the conditions will not satisfy them or prove harmful to them. The result is not favourable to the Assam tea industry, for the missionaries must, under the circumstances, discourage emigration to Assam. Not only does the Act diminish emigration but those who emigrate cannot do so without deterioration, as they often are left guideless.

Sardars are paid too much and they gain their money too easily. Hence, sometimes they do not care whether they act legally or not provided they receive their pay.

Simple coolies are sometimes on leaving the plantation urged to become sardars. Money is advanced to them and if they do not return to the estate they are threatened with the police. Many coolies cannot resist easily the offer of an advance hence the obligation of recruiting other coolies should in no way be fostered on them. If they themselves ask to be appointed sardars then, of course, the case is different.

According to the Act, unmarried girls of sixteen are not minors, but if eighteen and married they are minors, since they require their husband's leave to be recruited. Unmarried boys and girls are considered by the aboriginals as minors. The Act might perhaps be changed in this way: "For the purpose of this Act all unmarried young people are presumed to be minors."

(v) The Act need not be changed very much. It might be altered in such a way that persons truly trustworthy would be allowed to help in recruiting only the people well known to them. The recruiting for Assam if made too free will surely lead to great abuses; therefore, only a few changes should be made in the Act and later on a few more if judged necessary. It is then suggested that certain trustworthy and responsible persons be allowed to assist in recruiting. Sardars would still be used according to the Act and the labour would be sent to the usual depôts.

These chosen persons, quasi agents, would be allowed to correspond with the planters of Assam about recruiting. Then the quasi agents would send to the plantation a few intelligent men to work there for a short time and come back with a sardar's certificate. These sardars would be allowed to recruit with the help of the quasi agent the people in whose welfare the quasi agent has the right and obligation to take interest. This recruited labour would be sent to the nearest depôt by the sardars. The quasi agent should have the right to enquire from the planter about the welfare of his people.

The granting of status of quasi agent would depend on the Deputy Commissioner, who might at any time, when reasonable cause offers, suppress the certificate of the quasi agent. The quasi agent would be strictly forbidden to receive any salary or commission.

7. (ii) (c) Unemployment as to the ordinary labour is due to the failing of demand for it. Many indeed would be willing to emigrate for six months or even for one year, if the salary were good, but the offer is too great for all to find work.

The ordinary labour of Chota Nagpur is good at digging and forest work. Only great want or high salary will make them sign on for one or two years. Their attachment to their holding, however small it may be, makes them dislike long term engagements.

As it is, in many cases an exodus to the tea plantations leaves them with little real profit. They bring back money indeed, but much of it will be spent in buying the rice they did not obtain from their fields during their absence and in buying seeds for the next season. The tea plantations provide them with a ready means to tide over a bad season but do not substantially improve their lot either morally or financially.

7. (iii) The best method to alleviate distress would be of an agricultural kind, and is, therefore, outside the scope of this enquiry.

Another method would be to give petty contracts of the Public Works Department to the labour directly.

8. (iii) (c) Grogshops, if removed to a great distance from the plantations, would not be the cause of time and wages lost. Leaving out the labourers who sign on for a six months' term and work hard—the others work in general not more than five days in the week. Were the grogshops farther away, they would work more. The majority of tea labour sign on for one year.

III.—Housing.

16. (i) In tea plantations the housing is good. (ii) Private landlords do not provide any for seasonal labour, but the coolies of Ranchi District who work in the Babu gardens around Calcutta live often in leaf huts made by themselves.

IV.—Health.

23. (i) The mortality in the tea plantations does not seem to be higher than in Chota Nagpur.

24. In the plantations the labour is provided with medical help. Some native-owned gardens are said to be less well managed.

29. (ii) The labour coming back from the surroundings of Calcutta, bring often with them Kala-azar and other diseases unknown in Chota Nagpur.

V.—Welfare.

32. The tea planters offer a school house to the labour, but I think many do not really desire the coolies to accept the offer, neither do the coolies shown any eagerness to accept it.

IX.—Hours.

D (a) In the tea plantations the hours depend on the amount of work the planter can offer. A strong man can finish 2 hajiris (tasks) in 5 or 6 hours; if work be available such a man would work 8 or 10 hours.

XII.—Wages.

96. One hajiri is paid 4 annas; an industrious worker may finish 3 hajiris in one day, except in the dry season, when the same amount of effort would mean a gain of about 8 to 9 annas only.

98. Thirteen lakhs yearly are sent home by money order in Ranchi District.

100. Contractors should be obliged to pay in full the wages at least once a month, and especially at the end of the work. Some promise to send by money order the amount of wages left over and do not send it.

RAI SAHEB DEVENDRA NATH SINHA, Vice-Chairman, District Committee,
SANTAL PARGANAS, DUMKA.

I.—Recruitment.

1. (iii) The district of Santal Parganas is inhabited by a large number of aboriginal and semi-aboriginal tribes, their proportion to the total population being over 60 per cent. Peculiar laws and regulations have been framed by Government to induce these thriftless aboriginal people to keep them to their homes and not abandon their hearth and home entirely thoughtlessly. In spite of this, however, we find the aboriginal tribes, notably the Santals, do go abroad in search of labour.

Besides this regular recruitment by the Association there are other private agencies who recruit labour for work in coal mines in the adjacent districts of Burdwan and Manbhum and Birbhum, and their number is estimated to be between 3,000 to 4,000; the people who take to mining being mainly *Bauris*—a low caste Hindu. There is casual emigration of aboriginal labour from the district in connection with jute and paddy harvest in *Borim*, as they call the part of Bengal where their labour is in demand. In this way also about 4,000 people go abroad, though for a short time only.

(ii) In recent years, however, a change has come upon the migratory people. The aboriginals of the district, who are generally thriftless, do not lay by anything in a year of good crop. The result is that in a lean year they have to borrow from non-scrupulous *Mahajans* or *Baniays*, who during the harvest season take away whatever they could lay their hands on to satisfy the debts he had given. So practically the poor cultivating aboriginal ryot finds himself in a vicious circle of repaying in fat years what he borrowed in a lean year and in trying to make the two ends meet finds himself much in the same position no matter whether his lands brought in a good or bad crop. Disgusted with life dependent on land that could not sustain him he naturally turns his eyes to labour abroad. The tea plantations offer such people a good avenue for work. The terms and conditions under which the plantations recruit labour, especially under the Labour Association, prove attractive.

The aboriginal people are noted for their fecundity, and for a people like these pressure on the soil is liable to be very acute, necessitating a search for employment by members of a family who are unable to work remuneratively on the family holding. The aboriginals of the district, in fact, have in the past been driven to seek work in connection with paddy and jute harvests in Bengal, dock and building works in Calcutta, coal mines and on tea estates; the volume of migration varying according to the necessities of each season. When there is plenty of food owing to bumper harvests, migration is small, but in seasons of scarcity the people literally clamour for labour.

2 and 3. The system that obtains both in the Dooars and Assam may be called the *Sardari* system. Owing to this system being in vogue here a proportion of emigrants is constantly returning to recruit their relatives. These Sardars can be taken to be an effective link between persons who have gone to the gardens and that of their relatives who have not. I have known of men who have gone to the plantations with a view to knowing things first hand and then if conditions there proved suitable to come back and take away as many of their relatives as are inclined to go. In many cases the whole family has migrated. The gardens, I understand, repatriate a large number of short or fixed term recruits from this district on the expiry of the term at the garden expense. The fact that so many of the people of this district willingly go over to the plantations is a sure testimony to the conditions under which they are recruited and the sort of life they are required to live in the gardens. In the olden days, when the *Arkuti* system of recruiting was in vogue, people used to suspect the intentions of all the recruiters; the system that attached no responsibility to the agency that recruited labour became in course of time a byword for deception and intrigue. The very name of *Arkuti* (recruiter) still stinks in the nostrils. To maintain contact with villagers, what is wanted is a responsible agency. A person who recruits directly should be known to the people whom he recruits, and the people under whose guidance and control the recruiter works should be men of standing and position: exactly what we find nowadays among the Tea District Association employees of the status of superintendents. In fact, from the point of view of the labourer the *Sardari* system is in my opinion an ideal system—a system by which a person is recruited by an individual who himself returns to the garden with the recruit and is responsible throughout for any fables or misrepresentations he may have perpetrated. The garden *sardar* who recruits is of the same class as the potential recruit and is not merely financially interested in recruitment as would be a professional recruiter or the officials of an employment bureau. The system also whereby a local agent and a forwarding organization register the recruit and look after creature comforts in the way of clothing and food is calculated to give the intending emigrant full confidence in his future.

All labour recruited from our district is not done according to any fixed principle. There are persons who come from outside the district and recruit labour under false pretences just to get something out of the firm or company that cares to employ them. To be effectively conducive to the good of the labourers, the agency or organization whatever it may be, it should be responsible for its doing to a legally constituted body whom law and public opinion can easily touch. It would have gone a good way towards the betterment of the lot of the labourer if all recruiting agencies come under some such bodies as the Tea District Labour Association.

4. The recruitment of labour for distant districts such as Assam and Dooars certainly affects the family life and tends to lower the moral tone of the people who are snatched away from the family circles. Instances are not rare when husband goes away in search of labour leaving his wife in the village to be cared for by the parents of the husband or more commonly by the parents of the wife. If they are young—the recruits are generally young able-bodied men, for they have to pass a medical test before they can be sent away—the wife plays the fool and the husband scents this on return and the result is a rupture in the home. In spite of precautions

being taken it is not uncommon to come across young couples in intrigue with each other coming to a depôt and describing themselves as husbands and wives go away to the gardens. The extent of the disturbance is not negligible and can only be minimized by resorting to the practice of recruitment of family groups and avoidance of single male recruitment.

The gravest evil results from the breach of this family tie and the presence of harlots. The victim of separation from the husbands, in a small Santal hamlet, tends to lower the morality of the whole people. Subject to social ban put upon her she defies openly the conventions of their society and contaminates the whole village by her presence. The sooner this single male recruitment ceases the better for the people and persons employing labour. In the same way when a woman goes to the garden single, which is very rare though, she is looked down upon by her community on her return and not finding her position enviable begins to look upon morals as something she would like to maintain but others do not allow her to do so. She joins the ranks of her less fortunate sister whose husband had gone away. The Santals of the old type resent recruitment for labour only on this ground.

RAI BAHADUR SARAT CHANDRA ROY, M.A., B.L., M.L.C., Vice-Chairman,
District Board, Ranchi.

1. *Origin of Labour*.—(i) A considerable migration to the labour districts takes place from the Ranchi district.

There are three streams of migration, from this district, viz. : (a) Annual migrations to Calcutta and its suburbs and also to certain Bengal districts such as Rajshahi, Malda, etc., in search of temporary employment, such as digging tanks, making embankments, working in fruit gardens, etc., from November to March or April, when the aboriginal raiyats have no agricultural work of their own at home. (b) Similar temporary migration to the tea-gardens of the Dooars. (c) Migration to Assam tea-gardens.

(It may be noted that very few people from the Ranchi district go to work in the neighbouring coalfields of Hazaribagh and Manbhum districts, or to the neighbouring industrial town of Jamshedpur—as the conditions of work there are not liked by the aborigines of this district who are accustomed to work in the open air.)

(ii) Causes of the above-mentioned three streams of migration : (a) and (b) As the aboriginal population (Mundas, Oraons, Kharias, etc.) depend for their subsistence mainly on agriculture, and as in the case of a large number of aboriginal families the produce of their fields is not sufficient to maintain them throughout the year, the annual migration to the labour districts is considerable. Debts incurred to meet occasional ceremonial expenses such as marriage, the rapid swelling of debts contracted on high rates of interest from usurious money-lenders, heavy costs of occasional litigation, etc., drive some aborigines to migrate temporarily to the labour districts. Years of drought and famine necessarily add to the volume of migration. (c) *Migration to Assam*—Migrations to Assam, now generally on agreements for one year, are normally not popular among the aborigines.

In many cases unscrupulous recruiters induce young men and women and simple unsophisticated families by false hopes of easy labour, cheap living and good prospects, to migrate to the tea-gardens of Assam. The recruiters sometimes ply their victims with drink to secure their consent. Not unoften young men who are in love with women (sometimes other people's wives) whom society forbids them to marry or consort with, on pain of excommunication, are induced to migrate with their sweethearts to Assam under false names. Very few aborigines of this district voluntarily migrate to Assam with full knowledge of the conditions of work, net income, housing, etc., in the Assam tea-gardens.

(iii) Since the abolition of indentured labour, conditions of labour in Assam tea-gardens have improved to some extent ; but such labour is yet far from popular. Temporary labour as tank-diggers, etc., in Calcutta and its suburbs and in certain other Bengal districts is getting more and more popular as wages are gradually increasing and as the labourers are much better treated and can return home at will, and the conditions of work are more favourable. Labour in the Dooars gardens is preferred to that in the Assam gardens as the treatment and conditions are reported to be much better than in the Assam gardens.

2. *Contact with Villages.*—(i) *Extent and frequency of return.*—Those who go to Calcutta and other Bengal districts for temporary labour return home in March or thereabouts after a stay of six months or less. They generally go in company with other fellow-villagers or tribe-fellows and relatives and thus even when temporarily away from their villages, they are hardly cut off from the social moorings of their native land.

Most of those who migrate to Assam generally return home as soon as they can get free, and would hardly think of going back again unless under exceptional and unavoidable circumstances.

Those who go there to avoid social stigma or excommunication or for similar other motives generally settle down near the tea-gardens and hardly return home. So too do those who fall into evil ways in the gardens and begin to live in illegal union with some woman. A few of the more intelligent and ambitious among the aboriginal labourers are tempted by the prospects of recruiter's emoluments to attach themselves permanently to the gardens and work as recruiters or Sardars. These latter pay periodical visits to their villages for the purpose of recruitment by methods which are, as often as not, undesirable or reprehensible. A very few, owing to superior intelligence, a little education, and exceptionally good work get employment as clerks, etc., and stay on.

3. *Methods of Recruitment.*—(i) So far as labour in Calcutta and Bengal districts is concerned, the aborigines go direct and of their own accord, and seek out employment for themselves or with the help of their tribe-fellows who had been to those places before.

So far as recruitment to the tea-gardens is concerned, recruitment is carried on by *Sardars* and their underlings, not unoften by undesirable methods. Recruitment for the Dooars gardens is generally free from objectionable tactics.

(ii and iii) The first step for effecting improvement would in my opinion be to abolish the system of employing recruiters or *Sardars*, and to effectively put a stop to the demoralizing practice of giving commission or remuneration of any kind for recruitment of labour.

The next step that I would recommend would be to take the help of such honorary workers for the social and economic uplift of the aborigines, as Missionary bodies (like the Catholic Mission and Protestant Missions of Ranchi) and social improvement associations like the Chota Nagpur Improvement Society (*Unnati Samaj*) who, I expect, would in the interests of the labourers, agree to keep registers of persons willing to go to the tea-gardens after full knowledge of the conditions of labour, remuneration, mode of living, cost of living, and prospects, if any; and no coolie will be taken to or admitted into any tea-garden without a certificate from the head of such missionary bodies or Social Improvement Society that it is a case of voluntary emigration with full knowledge of the conditions, prospects, etc.

The third measure that I would recommend would be to arrange for quarterly visits to the gardens (at the cost of the garden authorities who should pay suitable travelling and halting allowances) of representatives of these Missionary bodies and indigenous Social Improvement Associations to enquire into the condition of the labourers, and discuss with the garden authorities how the grievances, if any, of the labourers may be removed and conditions of labour may be improved. These representatives will forward to Government reports of the condition of the labourers during their visits and suggestions as to any improvement.

4. *Extent and Effects of Disturbance of Family Life.*—So long as the present system of recruitment through *Sardars* continues, the effects of disturbance of family life will continue to be in many cases quite disastrous. I have known several cases in which these *Sardars* have taken advantage of temporary quarrels between husband and wife in secretly inducing the wife to fly to some Assam garden under a false name. In most such cases, after her temporary fit of anger or annoyance has subsided, the woman finds or is induced to believe that it is too late to return, and she has to repent for the rest of her life. In a few cases I have known elderly women being taken away in this way leaving her husband and grown-up children in a huff. And in such cases, the name, etc., is changed and so the husband, even when he seeks to pursue his wife to Assam, cannot generally find her out. I know of one instance in which such a husband went to seek his wife in Assam, leaving his children at home, and never returned home himself. Mean advantage is taken in this way by these recruiters even of temporary quarrels between father and son, or mother and daughter.

Sometimes though a man goes to Assam under stress of poverty and with the avowed object of returning home, after a time, with savings, he falls into evil ways and never returns home; and his wife unable to maintain herself and her children, when remittances from her husband diminish and at length disappear, has to take another husband, and thus the family is broken up. Freed from the moral restraints of society

that existed in his native place, an aboriginal coolie not unoften succumbs to the various evil influences of Assam tea-garden life. Some live in illegal union with women whom society would not permit him to live with or marry ; and thus they can never return home.

BIHAR AND ORISSA COUNCIL OF WOMEN.

I.—Recruitment.

3. (i) Method of recruiting young women and young girls should be thoroughly investigated.

(ii) Proper provision should be made for their care at the depôts and on their journeys.

6. (iv) Facilities should be afforded and help and encouragement given to coolies to send remittances to their families. The coolies require assistance in the actual completion of the forms. Difficulties of this nature have occurred to our knowledge.

IV.—Health.

24. (ii) More provision should be made for the clerk and teacher classes for the treatment of phthisis at a moderate charge.

(iv) Compulsory regular training of midwives should be enforced. Annual courses of training, of ten days to a fortnight, should be compulsory throughout the province to all practising midwives. Trained welfare workers who would tour and give lectures where necessary should be appointed.

25. (ii) Medical facilities would be more utilized if the hospitals were made more attractive for the women by the provision of special care for women and more female nurses and attendants.

27. (iii) In view of the increasing employment of men and women, used to an open-air life, and the consequent spread of disease, especially phthisis, strict attention should be paid to the provision of adequate light and ventilation of factories.

31. *Maternity Benefits.*—We are strongly in favour of maternity benefits being given to women employed in industrial concerns for at least a week before and after confinement.

V.—Welfare.

33. Where women are working in lac factories, etc., we recommend that a woman welfare visitor should be employed to look after and report on the health and environment of the women workers.

Mr. G. E. FAWCUS, M.A., C.I.E., O.B.E., Director of Public Instruction, Bihar and Orissa.

2. (Item V, 36.) The returns submitted to me for the year 1928–29 show 42 so-called factory schools. Of these 17 are colliery schools maintained by the East Indian Railway near Giridih, 10 are schools supported by various collieries in the Jharia coalfield, 5 are supported by the owners of mica mines near Kodarma, one by the Peninsular Tobacco Company at Monghyr, 2 by the Bengal Iron and Steel Company near their mines in Singhbhum, and the others are 6 night schools and a commercial school at Jamshedpur.

Of the above schools only those at Jamshedpur really cater for adults. The others are intended for children. The concerns connected with the schools are said to employ in all 2,647 boys and 678 girls. The number of pupils who are employed by the concerns, or are children of employees, is 1,718 boys and 41 girls ; there are 64 other boys attending the schools.

The schools at Giridih are fully described in Pamphlet No. 2 of the Bureau of Education. When I wrote the article for that pamphlet there were 31 schools, but the number has fallen because the Hazaribagh district board is in financial difficulties and has greatly reduced its grant.

Having regard to the interest which the administration of the East Indian Railway has shown in the schools at Giridih, and in the education of its employees generally, it is at first sight surprising that the list of "factory" schools includes no schools at Jamalpur. The Jamalpur labourer, however, appears to return by a cooly train to his village as soon as his work is over, and the more skilled labour is provided for by the technical school, which, as already noted, is under the control of the Director of Industries.

The night schools at Jamshedpur and the colliery schools in the Jharia coalfield have been described in the memorandum prepared by the local Government.

3. (Item VI, 40.) There is nothing special to record under this head except as regards Jamshedpur. Jamalpur is well provided with schools of the ordinary type, maintained or aided by the East Indian Railway, and the Jharia coalfield contains the usual high, middle and primary schools, neither better nor worse than others. The financial position of the province makes all its schools less efficient than they should be.

The educational position at Jamshedpur in 1921 was described in Pamphlet No. 11 of the Bureau of Education. Since I wrote that pamphlet the schools have been reorganized. Much more attention has been devoted to the primary schools, and the boys who pass out from these schools can now proceed to middle schools and so to the high school, in which, by the way, elementary science has been made a compulsory subject of instruction. The company's contribution to the schools has risen from about Rs. 52,000 in 1920-21 to Rs. 82,000, and the Government grant from about Rs. 7,000 to nearly Rs. 18,000.

I have been in close touch with Jamshedpur for many years, and can testify to the real interest in education taken by the company, and its readiness at all times to co-operate with Government in the matter. The sum of 1½ lakhs, provided half by Government and half by the company for the recent improvements to the buildings of the middle and primary schools, has made those schools not only easier to teach in but much more attractive in appearance, and this fact alone will, I have no doubt, tend to swell their roll number.

SHREE BIHARIJI MILLS.

ROLLER FLOUR OIL RICE DALL MILLS AND FOUNDRY.

4. *Dietary and Physique.*—Indulgence in intoxicating liquors and drugs among the labour seems increasing. Such practice generally tells upon their health and a greater portion of their daily earnings is wasted away in intoxication. Number of such liquor and drug shops should be reduced by the Government, moreover they should be kept at a distant place from a factory so that they may not fall within the easy reach of the labour. This will improve both the intellectual and physical power of the labour.

9. *The effects of 60 hours restriction.*—Such restriction is considered to be not beneficial to local industries. This has increased unnecessary labour expense of the employers. Some suitable scale of actual time of working rendered by the employees during the whole of their time when they are on duty, should be drawn up. For instance, Ghani attendance and coolies working in the oil mill, though their working period is 10 hours a day yet the actual time of their work will in no way exceed 6½ or 7 hours a day and the remaining 3 or 3½ hours of their working period they spend in idle talks and in a light slumber. There is a mutual arrangement among them to look after the work of their fellow worker also, besides their own whenever during the working hour their co-worker intends to go out to attend his own private business and thus they manage to go out one by one in their respective turn. But such is not the case with a Fireman working with a boiler. He has to work continuously till the time of his work be over. Consequently in our opinion the weekly period of work for the labour employed in industrial concerns such as oil mill, etc., should be increased from 60 to 70 hours or so per week and it is needless to say that such modification in the Factory Act will save many industrial concerns.

Intervals allowed.—As most of the local factories are worked by means of labour divided into certain groups or shifts working alternately at an interval of 4 or 6 hours, there is no necessity of making any periodical stoppage of their work but in case of ordinary labour working continuously for 8 or 9 hours a day, an interval of half an hour is allowed to them for rest and tiffin. Special attention is given to the fact that in no case their period of work should exceed 6 hours at a time.

THE LABOUR FEDERATION, JAMSHEDPUR.

I.—Recruitment.

1. *Origin of Labour.*—Jamshedpur being one of the largest concentrated labour employing industrial town people all over India regard this place as a direct field of employment. Practically all provinces are represented on the skilled and semi-skilled jobs. Unskilled labour is confined mostly to Central Provinces, Chatis-Garh divisions and to Behar and Orissa Chotta Nagpur division. Previous to 1918 Chatis-Garh labour was unknown in Jamshedpur. Since that time it has largely replaced aboriginal labour from Chotta Nagpur. The causes assignable are presumed to be violence used in the first strike of 1920 and the excitement before and after the event. That seems to have frightened these timid folk. It is claimed that the aboriginal labour from Chotta Nagpur was more sturdy and hard working than the one that later on replaced it.

The Chatis-Garh contingent first arrived in 1918 due to famine conditions in Raipur District and since then the stream is continuously and steadily pouring in.

The causes of influx of skilled and semi-skilled labour so far as all the communities represented in Jamshedpur are concerned together as a whole can be said to be one or the other of the undermentioned causes:—(a) Dearth of Industries in their own provinces. (b) Better wages. (c) Extensive turn over of labour and better opportunities of employment. (d) Prohibitive laws against holding lands in their own provinces. (e) Escape from indebtedness and consequent poverty. (f) Native daring.

Of recent years the *Pathan* population has appreciably increased due to the preference shown by employers to recruit this class of labour in times of labour troubles as being the least likely to be interfered with by the striking workmen.

2. *Contact with villages.* (a) *Unskilled labour.*—During cultivating season from June to September there is great exodus of this class to their native fields. An appreciable dearth is always felt during these times. This class had not yet divorced itself from its lands, incomes from which they always supplement by annual labour in industrial towns. Given a preference they would revert to their native soils. Their holdings are uneconomical and they must fall back to manual labour in towns. It has been that brothers and relatives will change turns between minding the land one year and seeking employment the next.

(b) *Skilled and semi-skilled.*—Their employment does not vary on the aforesaid cause, but their stability does not vary the less. Marriage and deaths are two factors that take them to their native places and their absence averages about two months.

3. *Methods of Recruitment.*—Formerly employment was made directly by the officers having vacancies, but as that system led to various abuses and corruption, a central employment bureau was substituted, with, according to labour view point, very little change or success.

At one of the local factories in Jamshedpur obtains a Sardar system of recruitment, partially adopted for some time at the Tata's plant also. Sardar system is uneconomical to the growth of orderly organized system of Trade Union.

The best possible solution from a labour point of view and we do not see why it should not be from employers' point of view, is to establish an employment bureau in conjunction with a labour union that can render service both to labour and employer.

7. *Unemployment.*—A certain number of unemployed is always visible in town. At times getting aggravated due to various causes:—(a) Strikes or lockouts and retrenchment in other industries and factories. (b) Famine or floods. (c) Restriction on employment as prevailing at present. (d) Men who had taken settlement and service money from the Tata company after the last industrial dispute.

Lines of solution suggested of ending of industrial disputes by:—(i) Conciliation Boards. (ii) Opening up of temporary relief measures by way of road, embankments, tanks, etc., constructions by public funds. (iii) Better sources of distribution of

information of possible requirements in other towns than where such accumulation of unemployed takes place. (iv) Establishment of labour commissioners in provinces with suitable facilities and machinery for obtaining requisite information.

Unemployment insurance would be a success where labour is a stable proposition and in the case of workers of a skilled nature if unemployment insurance premium is either paid by the employers or if the premium is made sufficiently low to be paid small premiums out of the workers' wages, or through State agency or partly a combination of each of the three mentioned above.

8. Labour Turnover.—The biggest factor militating against continuous employment is the periodical or seasonal return of workers to their native homes for marriages, funerals, crops. Leave is obtained for a certain fixed period and invariably overstay, losing not only chances of their existing jobs but also the accrued privileges of previous service. Lack of native education and proper distribution of information are responsible for this attitude of mind. The chances of repairing the ravages on return are daily getting restricted.

II.—Staff Organization.

(10 and 11). At present labour has no voice in the selection or form of the departmental or administrative organization. But one thing that labour in Tata Works at Jamshedpur feels is that there has been such a multiplicity of supervisory staff, both higher and subordinate ones, that much time and effort is needlessly wasted through conflicting orders. In fact the ratio between supervisory staff and actual working men would be found to be hopelessly out of proportion.

The managing staff is mostly recruited and appointed by the board of directors, apparently helped by certain technical staff stationed in England and America.

12. The method adopted so far is one of benevolent discretion which has led to a growth of a supervisory staff, which both in bulk and in intelligence cannot be regarded as an extra efficient organization. The selection has been haphazard, and one of the most disorganised type, with no basis either of education, training or talent. At present a technological institute of a sort has been in existence for some years, and the batch of trained officer class students that were originally intended to be turned out have neither properly fitted in nor given full opportunity for the work they have been trained for. These men are regarded with a suspicious eye by the covenanted staff, who have apprehension of being ultimately replaced by these people, and undisguised contempt by the locally recruited staff for their lack of proper knowledge and training of detailed routines of the departments. The students themselves in many cases do not seem to either feel or make themselves comfortable, and their value to the company seems problematic. Retaining of lower workmen staff must always remain a matter of great difficulty, due to lack of reading and writing ability, though not of innate ambition or talent. In many cases these grave handicaps have resulted in many a deserving man being superseded or discharged. Facilities for learning the elements of reading and writing are either non-existent or very restricted, and social customs have put not a few difficulties in the path either.

13. Relations generally at present are very strained between the immediate supervisory staff and rank and file of workers. The reasons are many and vary. The majority of the immediate supervisory staff have been ignorant and illiterate, more concerned with their power and authority than with any welfare of either their employer or their labour; corrupt, tactless and unfair, as a result the organisation cannot render smooth service. The workmen are in no mood to swallow every thing that comes from their foreman. As a possible solution, and in place of departmental enquiries for redress of grievances which have been found to be unsatisfactory, recently shops or departmental committee system has been introduced at the instance of the Labour Federation, and though it would be too early to judge of the results, it can safely be said that they have not been found unsatisfactory so far. On the contrary, some departments definitely aver that these committees are working splendidly. The Committees are composed of seven members, four nominees of Labour Federation, i.e., trade union, and three nominees of the company who are actual manual workers, and there is no representation of the clerical or foremen staff. As a result there is not endless arguments nor any kind of coercion possible within the ranks. The handicaps, of course, to these committees have not all disappeared. They are:—(a) Interference from the superintendent of the department or of the foreman. (b) Apprehension of possible loss of prospects in service through over zeal in discharge of his duties as member.

The decision of the shop committee is not final, either on the employer or on the applicant for redress. Both the parties can appeal to what is known as Board "A" composed of two direct representatives of the Labour Federation; that means two

representatives of a trade union and two representatives of the steel company of the employers. A final appeal has also been provided for in the shape of a board composed of the general manager of the steel company and the president of the Labour Federation, i.e., trade union. All questions dealing with discharge, suspension, promotion, grade, etc., are referred to these shop committees for disposal, and in fact every question relating to dispute between employer and the employees is within the competence of these shop committees. We are very hopeful of real good work being achieved through the medium of these shop committees if the employer takes their finding in real good spirit to the promotion of lasting goodwill of the parties.

15. A trade union should not like the presence of a contractor as an intermediary for the simple reason that labour, at all events, should be in direct contact with his employers. The contract system we know of in the steel plant covers work that company has found uneconomical or undesirable to be done by itself. Our view is what could be performed economically by contractors could, *pari passu*, be done, or ought to be done equally economically if not more cheaply by the employers themselves. One of the disadvantages of working under contractors so far as labour is concerned is the ease with which the liability can be evaded by the contractor or the employer in respect of compensation for accidents and expense and trouble involved in fastening such liabilities. Then, again, contract labour is deliberately kept steadily moving and fluctuating so as to escape liabilities for leave and other privileges which militates against growth of a stable working class. Further, contractors are utilised as strike breakers and blackleg suppliers. Again, a close supervision cannot be kept over the various abuses to which contract labour is always subject as, for example, sweating, frequent dismissals, etc.

III.—Housing.

16, 17, 18, 19, 20, 21 and 22. Tata Steel Company provides accommodation for 95 per cent. of its higher staff, but facilities for working people are hopelessly inadequate, the company being able to meet only 30 to 40 per cent. of the requirements of the company's total working staff. Private agency has not received any kind of encouragement from the steel company either by way of guaranteed returns to the capitalist or providing facilities to small money holders. We have known of cases where kacha houses have been constructed and subsequently sub-let to persons who had not houses to move into, and the steel company has come down upon the owner of the house either to get ejected or submit payments of enormously enhanced rents. This is not certainly affording facilities to put in more houses through their agencies when the company itself is not in a position to undertake the task itself. The company's scheme of helping the employees desirous of building their own houses has not proved much of a success looking to the numbers so far built, due to absence of proper rules by the company, too much interference by the departments, and last but not least due to the sense of insecurity regarding tenure of service, no adequate provision being made of transfer of holding in case of leaving the stations. In absence of proper housing facilities it is difficult to imagine how the workmen could ever feel comfortable either at work or off work. The situation does not conduce to peace of mind, and has been therefore responsible for a great deal of anxiety both to the workmen, employers and the Government. The housing problem has ever been acute, adding to the shortage has been the hardship of an inadequate accommodation provided in the various types of houses built by the company. The R N, M1, M2, N1, N2 type of quarters do not seem to provide accommodation that is consonant with modern thought and tendency to provide workmen with. The houses are one room about 10 feet square, with or without a slip of varandah about 2 feet by 3 feet wide, in that is to be accommodated a family with one or twenty members, the company not caring to worry as to how many occupy that quarter, neither is there any machinery for taking into consideration the number of family members before allotment of a quarter which is at present based solely on service and rate. As a result in town we find much unhealthy congestion and unhealthy agitation.

Water supply is hopelessly inadequate. Busties are still practically without water supply. In the various quarters water taps are not provided as a rule one tap to each quarter. There is one tap to several quarters, leading to frequent quarrels and bad feelings in the town, as the supply is at once inadequate.

The sum total of these handicaps react very adversely on the moral tone of the workman and his family, and to all intent and purposes we find ties of family life so loose that one might boldly assert that there exists no family life at all. One of the visible signs is the number of cases in criminal courts of offences dealing with women.

IV.—Health.

23. *General Health at Jamshedpur.*—Situating, as it is, on a widely extended area, does not compare unfavourably with any town of due equal population. If at all the balance would be in favour of this place. The Steel Company has supplied good medical facilities both for the workers as for the general population, though in cases of accidents and injuries, and often enough in cases of general sickness, there is a marked tendency to go to one's native place and have recourse to their own system of village medicine. In many cases where modern medicine has failed we have instances of good recovery through indigenous medicines which might be due, though we would not assert, to the healing value of indigenous drugs. It is also likely that confidence in the medicine may be one of the potent causes of cure.

24. A central hospital with a couple of branches for out-door patients is at present provided by the company. One would like to see an extension of these out-door patients' treatments in some of the outlying busties, where there is a definite compact population. As in many cases people continue through ailments, rather than go to the nearest branch, the extremely conservative nature of the people has not yet changed, and we would like to see medical facilities brought to the very door of the sick and the ailing.

The Government has a hospital with very limited accommodation and we think, looking at the size and population of the place, the Government could, and should, provide its quota of medical relief. As quite a decent percentage of the population has other employment or provision than serving in the various industrial undertakings in Jamshedpur at various outlying busties, would like to see medical help extended in the form of women doctors or trained midwives to minister to the wants and comforts of women and children. A direction in which efforts have not been adequately made, not only in this place, but throughout the company.

To a certain extent facilities must be provided for private medical practitioners which at present is restricted, due to a mistaken policy pursued by the company.

26. Sanitary arrangements in the town leave much to be desired. In busties it is a positive menace to develop well being of residence there. Leaving aside the northern town or European quarters where a complete flush system is provided, in town and other localities sanitary accommodation is next to non-existent. There may be one latrine to several quarters, or in others no latrine at all. In Sakchi and Kasidih a few central latrines is all that is provided, an institution that is held in biggest abhorrence by the people of the locality. In busties with a growth of population, all open spaces gradually come into occupation and the inconveniences suffered by the people can be more imagined than described. The company has made no provision to meet the necessities of the people in that direction.

Pumping facilities for providing drinking water for outstanding busties can never be an economical proposition for the company, as the outlay on the pipes and pumps would be, and has been, prohibitive. A more useful solution would be in the nature of digging wells, artesian for preference, which would permanently solve the drinking-water question.

The question of providing facilities for bathing and washing do not seem to have much disturbed the thoughts of the company. Any odd nalla with water that may be green with dirt, still affords the only chance to people, and we see sights of washermen using the same unhealthy source for cleaning clothes, that would put to revolt the conscience of a malariologist and other medicologists. In States and elsewhere we have seen special washing facilities provided to workmen in their departments, and also cabinets furnished for putting their clothes and other articles of wear. Some have even gone to the extent of providing soap and napery. We would like to see similar facilities provided here on the initiative of the employer himself, and not wait till a radical change takes place in the conservative habits of the people, for nothing succeeds like the compulsory setting of good examples.

30. Insurance against sickness and consequent unemployment we consider as one of the essential items of an employer's liabilities, and a duty duly to be discharged towards his workmen. The employers get insured against accidents in their workshops, and we do not see why they should not take additional steps to protect the workman as he does to protect himself in either case. The legislature ought to take up this matter seriously and compel employers to take sickness policies which would afford a halfway house protection towards old age, pension, and unemployment insurances, which are clearly duties of the State towards its subjects. We fully realise the handicaps the employers have at the present moment in the shape of insecurity of tenure of his workmen—but that is of his own doing—against the migratory habits of the people, the still existing dislike, towards the western medicine and other causes. But the realisation of advantages by the workmen of this system of sickness insurance would go a great way towards changing the habits of the workmen that are mainly based on ignorance.

31. Maternity benefit has recently been introduced in Jamshedpur, in the Tata's as well as other subsidiary industries and though it is premature to opine about the extent to which it will be availed of, there can arise no two opinions as to the wisdom and necessity of the step, however belated, it may have been adopted. It would not be out of place to use a certain amount of moral suasion to enforce compulsory expert medical help just before and after the event.

V.—Welfare.

32, 33 and 34. With the exception of educational facilities and provision for old age and retirements we believe all welfare work should be administered by workers agencies towards which the employer should be made to contribute to a very substantial share. This is desired in the interest of the employer himself to a certain extent since it will free the employer from the taint and suspicion of bribery ordinarily attached to employers' efforts in this direction. It has been found essential to provide for crèches for babies during the period the mothers are at work and that there need not be any objection to their being left to the management of some trade union existing in the place. Recreative amusements, physical culture, picnics, refreshments are items in the welfare programme which involve expenditure of large sums of money which can be undertaken at present only by the employers, since the trade union movement is still in its infancy and consequently in great financial wants, but which could be made a success only when administrated through workers' agencies which are the only sources liable to inspire confidence.

36. Employers should provide facilities for education, general or vocational, to their employees for nothing contributes to a stability and understanding of their workmen, than an intelligent workman himself. Though in this country a few can read or write, no man is too old to learn, and provisions of night school or off day day-class are known to create wonders in the cultural advancement of the workmen. Such provisions are practically non-existent, but we do not see why a start cannot be made in this direction.

37. Old age pensions are generally regarded in the nature of State obligations and so long as Governments go on spending the major portion of their revenue on military expenditures, no money could ever be found towards discharge of one of the main obligations and excuses for which Governments exist.

On the question of premature retirement we hold some definite views. Due to invariability of prevailing insecurity of tenure in most industries in this country of workmen services at any stage, no matter if he has grown grey in the service of his employers, we consider it a most essential thing that if a workman binds himself into the service of his employers for seven or ten years, the employers should be under an obligation to compensate the workman by way of gratuity in case of his voluntary resignation or dismissal by the employers or in case of death to pay him an amount in 1/12 of the period of service put in.

VI.—Education.

Where industries exist in areas far away from established towns and cities, we believe the employer should be under an obligation to provide for facilities for education both of the employed and un-employed portion of the town, which he more or less established for his own purpose.

Employment should be provided for workers as well as for workers' children to take up vocational training according to their bent of mind, and to supplement the work they actually do at the factories resulting in the case of the worker's increased efficiency for the employer, and in case of workers' children, of a well-defined useful resource of recruitment.

There could not arise two questions of the advantageous reaction on the employer of educational facilities provided to his workers in the matter of increased efficiency ratio.

VII.—Safety.

43 to 50. There is much left to be desired in the matter of arranging for safety codes in the various factories and industries. There practically existed no safety rules until the advent of the compensation acts which led to a certain amount of caution being exercised by the employers, not so much out of regard for human lives or limbs as in order to escape from financial obligations imposed by the act. The act merely prescribes certain compensations to be paid to the injured party or to their dependents, but there does not seem to be any provision made of a drastic nature to impose stringent regulations upon employers to adopt measures for safeguarding human

lives and limbs. There are factory acts just as there are mines acts, but they are always liable to evasion by the employers, and as opinions will always differ as to the degree of measures adopted, we consider that an effort should be made now to take the other course of making the cost of any accidents inside the factories so very prohibitive to the employer that it would pay him to install safety appliances which taken together may cost him half the burden. In other words the compensation to be given to the dependents of the killed or the maimed is at present so negligible that there is practically no incentive to the adoption of safety first measures.

Of course in this country at this stage of industrial development workmen have not acquired that "Safety Sense," and this ignorance is responsible for quite a decent percentage of accidents, but the time has passed when one can escape the liability under the excuse of workmen's negligence. It has been found, under the modern thoughts on factory legislation, that the employers being more organized, more intelligent, and with greater resources, it is in the matter of things more equitable and just to impose the obligation of insuring the safety of the office workmen on to the employers than to throw it on the workman himself. In America the employers' responsibility to his workmen is made so heavy and effective that they spend millions of dollars in carrying educative "safety first" propaganda, which has been found more paying than meeting any expenses after compensation in respect of injuries received in their factories. The display of posters in prominent places, holding of departmental safety committees and safety classes are some of the methods adopted to educate the workmen with very successful results. *It should be made obligatory* in every plant where more than fifteen people work and machinery is used as prime movers to have compulsory first-aid and medical dispensaries to meet cases of accidents, except in large centres and towns where facilities of ambulance and hospitals are available.

In every plant we consider it advisable to have a safety committee, composed of representatives from employers and workmen, who should report where safety appliances are needed and also to enforce such recommendations. Copies of such reports should be forwarded to the Government factory inspectors, who should satisfy themselves regarding the report and verify the enforcement. In places where any Trade Unions exist, they should as a rule be permitted to appear and lead evidence, in any enquiry regarding an accident either by the safety committee.

It has been noted that after a certain number of hours about ten on average of continuous work, after which the fatigue point having been reached, human body and senses become more or less benumbed and are not so alert and mindful of chances. There must be given a period of rest and any compulsory work beyond that period is not only uneconomical for the employer as dangerous to the employee. Conditions of work should be enforced under sanitary and healthy rules of plenty of light and air and we know of cases in America where even bands are provided to stimulate the senses leading to efficiency and activity. Our factories in this country are mostly ill-lighted, ill-ventilated, and lacking in modern appliances or accident prevention and health preservation. In most all machine shops where machines are turned, ground, or polished there are not visible exhaust arrangements, whereby minute particles of metal and dirt floating in the air are taken out by means of exhaust fans and the atmosphere inside the plant kept constantly cleaned and renovated. Such sort of safety precautions and appliances should be enforced.

VIII.—Workmen's Compensation.

51-54. We have a Workmen's Compensation Act since the last five or six years and though some sort of relief has been secured under it, the remedy has not been exhaustive nor up-to-date. We understand the act is to be further amended and we trust that all the latest provisions of such acts as prevail in Western countries will be incorporated in the light of experiences of the working of the act in this country. We prefer that no limitation of time should be placed on the filing of compensation claims, the report of accident in the books of the employer which should be compulsorily kept should be construed as due notice of a claim against him. The employer should be compelled to keep a register of the dependents and nearest relatives of his employees to whom he should be bound to give a notice of any accident sustained.

Certain minimum compensation should be fixed in fatal cases depending on the value of the life lost and not commuted according to the wages drawn. We recommend in case of unskilled labour a sum of not less than a thousand be fixed for fatal cases and not less than 1,500/- in case of permanent disability supervening loss of arm or leg or both the eyes. As for skilled labour the compensation should be computed on wages over an enhanced period than what is enforced at present subject to a minimum whichever is greater. At the present moment compensation is calculated on 30 months' wages in fatal cases and maximum of 42 months' for permanent disabilities, which in the case of unskilled labour works out to a figure that is

pathetically negligible. These periods should be enhanced and a minimum should be determined in the light of suggestions made above. We are quite mindful of a possible adverse effect likely to be produced on minor industries or on small investments of any stiffening of the compensation chances, but we urge that that employer does not need to exist who cannot take care of his employees. The problem can be solved by a system of compulsory insurance policy which every employer should be forced to take out before he could be permitted to proceed with his operations. This will take care of cases which we have known where employers have afterwards been found absolutely unable to pay anything to his deceased workmen.

Administrative machinery. We believe dependents ought to be permitted to apply directly to commissioner without giving any notice to the employer as at present to deposit the compensation. This is essential, as often enough the employer does not even deign to give a reply or to exert pressure to wriggle out of proper compensation.

IX.—A. Factories.

55-62. The eight-hour limit should be prescribed as the standard for every form of industry including seasonal industries like cotton, ginning, etc. Half an hour interval is given for meals if the worker has to put in more than six hours continuous. We would suggest that besides the time given if the work is of a hard manual character more period than that should be permitted to overcome the effects of industrial fatigue which reacts adversely on his muscle and senses.

The compulsory off days enforced under the Factory Act are four Sundays "off" in a month on non-continuous operations and two Sundays on continuous operations. We are of the view that four compulsory "offs" should be enforced against every individual worker, but the cost of two off days should be borne by the employer on the principle of increased return to him by way of increased efficiency and more attention to his work. If Christmas and New Year days are observed as total holidays in various factories and plants, we submit that an equal latitude should be given to the Hindu and Mahomedans in the selection of one prominent festival day for them as a holiday for the whole plant.

X.—A. Factories.

Children as a rule should not at all be admitted into any factories. Infants and childrens' area should be separated from the precincts of the factories and nursing mothers permitted to attend to their babies for whom crèches should be compulsorily enforced on employers. These crèches should be in charge of trained nurses, who can attend to the minor ailments of children and give instruction in personal hygiene.

As far as possible women should not be employed in factories where hard manual work has got to be done, and we are absolutely opposed to the employment of girls and adult women between the ages of 12 and 20, which age we emphasize in order to eliminate temptations presented before immature minds and which are the invariable accompaniments of factory life.

B. Mines.

All female labour in mines should be totally prohibited and their continuation is a blot on the administrations of this country.

XII.—Wages.

96-111. The minimum wages that Federation stands for and that it would like to see established by Statute for all industries should be one rupee for male and 12 annas for female labour. The present average earnings of workers in India are too miserably low to permit of even a bare living, bare housing, and bare wants. If this wage cannot be immediately enforced, we at least want a period to be named by which it should be attained.

Wages are fixed by piece-work or on daily system. If a man is fixed on piece-work as in foundries or in repeat machine shop operations, piece work is not inadvisable, but workers should not be permitted to work for more than eight hours maximum. The rate of wages when fixed by daily system should be fixed by the job rather than by individuals; what we mean is a flat rate for all workmen doing the same job, as our experience points out that to be the only method to eliminate bickerings and charges of unfairness, an alternative can be suggested in the form of a minimum to start with and a maximum to be attained by annual increments wherein the questions of efficiency or fitness of the employee can be judged by the continuation of his service only. In certain industries where production is by tonnage a system of payment by tonnage out-turn should be arranged for. Wages should not be held

over for more than a week after they are due, as the workers get into debt while the employers profit by interest. All payment should be fortnightly, though there should be no diminution of any of the privileges enjoyed at present under the existing systems. Wages should keep abreast of the cost of living, and not as at present stationary under the existing system.

Wages in factory towns and cities are always apt to be higher than those in the surrounding agricultural areas, because the cost of living is decidedly cheaper in agricultural areas than towns and cities, and consequently no inference can be drawn or rates established on a comparison of these rates. Besides, the conditions of work materially differ.

We are in favour of wages being fixed by mutual arrangement between the trade union and the employers, but under the present conditions where the trade union movement has not taken deep root nor enough loyalty cultivated the scheme does not offer any appreciable prospects at the present time, besides the law of supply and demand militates against any such arrangements for there are innumerable persons ready to fill the places vacated even on less wages.

All unclaimed wages should be expended for welfare and benefit schemes for labour.

We are in favour of one month's leave privileged with full pay for all classes of workers after a year of service. It should not be permitted to accumulate for more than three years, and leave should be granted whenever applied for and not whenever it is convenient, for a large scale employer is always in a position to arrange for his requirements, rather than a poor individual who cannot make other arrangements to suit his wants.

Industrial areas mostly everywhere are invariably infested by Kabuli and Marwari moneylenders, whose operations are detrimental to the peace and quiet of the worker. Most of these debts are due to ignorance and represent exorbitant interest or faked amounts. These could be overcome by a proper system of regulated co-operative credit societies.

XIII.—Industrial Efficiency.

112-116. Indian labour, though classified as inefficient, is the product at present of its surroundings. There is nothing inherent in our labour that should make it either inefficient or uneconomical. Its acquaintance with machinery can be regarded as only of recent times, and there has been no real opportunity of building up a class of artisans who have nothing else but their trade to hold for a living. At best at present work in factories is regarded as a means to supplement agricultural income, and for that reason real rates of efficiency have not been attained which we find in western countries. So long as men's attention and time is divided between land and factory this state of affairs will continue. There is, however, a real beginning visible of a landless class or a class practically divorced from land, and such class of artisan has made real good, and their efficiency can give a point to western workers. Further: education has not given its touch of refinement because no education worth the name exists. Besides, very often a standard set for work is false, and by inference the worker is blamed. Again, a worker seldom has given to him comforts in housing or other amenities of life that could permit him to relax to get upon his job willing and fresh. Of course physique in tropical countries, where life is generally easy, is not meant to compare with constitutions built for hardships and strains of a temperate or cold climate.

It is a known fact that a meat diet conduces to better stamina, capable of facing hard solid manual work, and that temperance both in habits and morals conduces still further to cultivate efficiency. When we mean temperance in habits, we emphasize the necessity of restriction over sale and consumption of alcohol, and in the provision for clean surroundings. It pays the employer to look after his labour outside the factory as he at present does in keeping a tab on him inside the plant, we mean thereby provision of clean houses, healthy surroundings, and so on.

Better wages, better housing, amusements, wider education, vocational or general, and sympathetic attitude towards its labour are the factors that lead to increased efficiency of the workers, and any expenditure on these items will bring in a double return to the employers.

XIV.—Trade Combination.

117-122. Trade unions in the modern sense have been only of recent origin in India; they have generally come into existence at a time when relations have been strained almost at a breaking point, if not actually broken, with the employer. They attain some sort of cohesion and efficiency during the period of struggle, after which they generally go to sleep. There is not that sustained interest nor that

development that comes to it when carried on during peaceful times. One reason assigned for this state of affairs is in the attitude of employers, who look upon every combination of workers with the most suspicious blasting eye. He deliberately imposes an acute and prolonged struggle on such combinations, which generally perishes through weariness and lack of sustenance. Very often it has been suggested that the employer is helped in his persecution of trade unions by the heavy hand of administration, and that accusation has a ground, if nothing else at least, by Government's aloofness in a struggle that can at best be described as one-sided.

In their despair these trade unions that have generally sprung up through the initiative of some enterprising workmen or workwomen, who have as a rule more native ability than cultivated talent, finding themselves unequal to the various machinations and tactics of employers have recourse to politicians in the neighbourhood, who put a totally different complexion on the struggle. More often false issues are raised and we have known cases where industrial disputes have degenerated into political tussles. Effects on industry and on the workmen of such non-industrial struggles are disastrous, they not only cripple industries but detrimentally postpone the growth of trade union or of solidarity amongst the workmen who recall the adage "once bitten twice shy."

A healthy trade union is the best guarantee for an industry's stability and prosperity, and as employers may be prone to form their own combinations, it would pay them to encourage a like movement amongst their workers and a history of workmen's struggles has strengthened this trend of thought. Workmen's combinations when well-led, well-organized and confined to labour alone have exerted a very healthy influence both on the well-being of workers and that of industry.

Trade unions generally in this country have had such short existence that the only benefit they have been able to distribute amongst its members is in the nature of strike pay, when they have had funds enough for the purpose, and that not too often either. Mutual benefit, unemployment, sickness and old age schemes have had no time to develop and if we are not wrong a state of affairs will continue in a like manner for some time still to come.

The Trade Union Act has not been so successful as anticipated and has not encouraged any growth of trade unions because of the halting nature of its provisions. Registration of a trade union in the archives of Government does not bring to it a recognition to its employers, which is the only thing that brings the two parties together. This glaring omission unless amended will continue to keep the act in an amorphous state, and though the immunity from liabilities both civil and criminal afford a certain measure of protection they do not go far enough. A determined trade union can continue a struggle and escape from all liabilities by so disorganizing the working of the employer, what registration of the trade union is meant to achieve, but it will not bring nearer the recognition by the employer which is a thing that connects. The Act should be so amended that an employer cannot refuse recognition to a registered trade union that contains 30 per cent. of his employees as members.

Where in any industry a trade union of sufficient strength and importance exists negotiations between the parties should be carried on through its medium, and all points of dispute should be settled in co-operation with it. The greater the confidence a trade union inspires amongst its members of its ability to serve them goes a great way towards establishing harmonious relations, between the employers and the employee which reacts favourably to an increased efficiency at the plant.

XV.—Industrial Disputes.

A lock-out is seldom paying to an employer though strikes have been known to have been won. The extent of duration and character of strike and lock-out have varied and are entirely dependent upon the parties and on surrounding circumstances. Loss to workers is certainly enormous, but there have been no gains without pains. Any machinery that prevents a showdown is always to be welcomed for there is not known any machinery that can compel either side to accept an award excepting a fight to a finish. A Trade Dispute Act recently promulgated as it stands can render some service though not surely when its provisions are put to use before the parties sever their connections. After a regular breach there is very little scope for the bill to prove useful.

Government's neutrality has been seriously questioned and it is open to doubt whether in the struggles between the labour and capital in this country in its present state of development can or should remain neutral. Where any large masses of men are involved the fact of these being striking workmen does not take away from them the status of being citizens and does not divest the administration of its responsibility towards them.

XVII.—Administration.

Each provincial administration should be primarily vested with powers to settle a pending trade dispute and central must not consider itself absolved from all responsibility.

Labour in large industrial centres should have a direct representation on the provincial Governments and provincial labour meaning combination of industrial centres should be represented on central legislature.

Mr. J. R. DAIN, C.I.E., I.C.S. (formerly Deputy Commissioner of Singhbhum).

Extract from covering letter No. ⁸⁷~~XL—1~~ L.C., dated the 17th February, 1930, from the Secretary to the Government of Bihar and Orissa, Revenue Department, to the Joint Secretary, the Royal Commission on Labour in India.

I am directed by the Governor in Council to forward for the information of the Royal Commission on Labour in India, a supplementary memorandum on labour unrest in Jamshedpur. The memorandum has been prepared by Mr. J. R. Dain, C.I.E., I.C.S., who has had access to all Government papers on the subject and has been in close touch with the local Government. Mr. Dain has the full approval of the local Government in submitting this memorandum, but I am to explain that it is prepared from the point of view of his own personal opinion on events with many of which he was in personal contact.

**MEMORANDUM ON LABOUR DISPUTES IN JAMSHEDPUR
FROM 1920 TO 1930.**

PRELIMINARY.

I.—Some Facts about the Town.

This memorandum is an attempt to give an account of the chief industrial disputes in Jamshedpur during the last ten years and in particular the three big strikes of 1920, 1922 and 1928, in the Tata Iron and Steel Works, and the strike of 1929 in the works of the Tinplate Company of India, as well as an account of the unions concerned. It is compiled as far as the history up till 1927 is concerned from the reports of officers of the Government, and for the last three years from the personal knowledge of the writer, who was Deputy Commissioner of Singhbhum (in which district Jamshedpur is situated) during the period. It is, therefore, open to criticism, as being a review of events from one angle only, that of the Government officer on the spot, charged with the duty of maintaining law and order, or in other words of "keeping the ring," and only concerned in a secondary degree with giving what assistance he can to the disputants in settling their differences. Statements made and opinions advanced in it are clearly open to challenge either by employers or workmen as misapprehensions due to lack of industrial experience or ignorance of the considerations which affected the attitude of the parties.

2. It is not necessary to attempt to give an account of the early history of Jamshedpur, but there are one or two facts to which attention may be drawn. The place is an isolated and self-contained area, the property of a single big company, with certain other associated companies run on a much smaller scale as its tenants. Access to it is given by one railway and one road; on the north and west it is entirely cut off from the surrounding country by two big rivers. A new industrial concern is generally started in an established town in which other industries are already working. Little more than twenty years ago Jamshedpur was a quiet corner of Singhbhum district, with one or two big villages and largely under jungle. The site was selected for the new enterprise as being near the sources of iron ore, not too far from the coal, and having a plentiful supply of water. There is also reason to suppose that it was believed at the time that it would be a centre of a large supply of cheap unskilled labour. The first stake was driven in February, 1907, and in the course of twenty years the Tata Iron and Steel Company has acquired about 25 square miles of land and established thereon one of the largest iron and steel plants in the world, and a modern town of about 100,000 inhabitants and surrounded itself with associated companies who take and utilize its products. The town is a microcosm of India, containing persons born in every province from Burma to the North-West Frontier, from Nepal, Afghanistan, China and Ceylon, as well as from half a dozen European countries, and from the United States, Canada and Australia.

The population has been housed, each after its kind, by the company, which also provides the hospitals, the municipal services and the amusements, as well as the means of livelihood. One result, however, of a large industrial town isolated in the middle of a comparatively poor country is that the cost of living has always been very high and this has been a big factor in industrial trouble.

3. Another fact to be remembered is that this town for a long time had no form of municipal government at all. The company was a benevolent autocrat, occasionally aggrieved to see that its subjects were inclined to resent the autocracy and to forget the benevolence. A special committee was appointed in 1919, under the presidency of Sir Walter Maude, to consider the problems that arose from the rapid growth of this industrial town. That committee recognized that the form of administration provided by the existing Municipal Act could not be adapted to Jamshedpur and made many far-reaching recommendations, including the formation of an authority to be called the Board of Works, to be composed partly of Government officers and partly of local representatives and to be invested by special legislation with the necessary powers. Effect was never given to this, partly for financial reasons, but soon afterwards the Iron and Steel Company and the associated companies came to a formal agreement between themselves, by which each was to subscribe a certain portion of the necessary capital and recurring expenditure, and to nominate a committee of companies which was to be the governing body of the town. The executive of this body was to be called the Board of Works (the title suggested for the different kind of governing body contemplated by the Maude Committee) and consisted of six representatives of the Iron and Steel Company, three representatives of the associated companies and two of the general public. The Iron and Steel Company was, of course, the predominant partner in this business, as it found most of the money and owned all the land, but the Board of Works had no legal powers of any kind. To remedy this, the local Government in 1924 made Jamshedpur a notified area under the Municipal Act, and appointed a Notified Area Committee, the personnel of which always remained the same as that of the Board of Works. To this Notified Area Committee were given certain powers under the Municipal Act, including the power (subject to the control of the local Government) to impose taxation. But the only taxes it has so far imposed are small taxes on motor-cars and the like; it has never attempted to impose rates, for the simple reason that the maximum rates that could be raised under the existing law would not furnish a quarter of the sum needed to keep the administration running at its present standard. There were thus two bodies, the Board of Works, a committee of the companies who found all the money and carried out the municipal services, and the Notified Area Committee, consisting of the same persons, with legal authority but no money. The agreement under which the Board of Works was constituted expired recently, and an arrangement by which each company manages its own area was substituted. This leaves the penniless, but legally empowered, Notified Area Committee as the formal governing body of the town. Jamshedpur is a unique example of a town with the most modern and efficient municipal services in India where the inhabitants pay no rates. It is hardly surprising that no objection has been raised to the arrangement despite its undemocratic character, and the relief from rates at the expense of the company constitutes an addition to wages which must not be overlooked.

4. South of Jamshedpur and outside Messrs. Tata's area is the suburb of Jugsalai. This is a congested and insanitary area, controlled also by a notified area committee, whose income is limited by the Municipal Act and, therefore, too small to do anything effective. It is inhabited partly by merchants and others, who have been attracted to Jamshedpur, but are not employed by the companies there. The inhabitants, who number about 15,000, include also many persons working in the companies, which have not yet succeeded in housing the whole of their staff. The Indian is inclined to be restless under the restrictions imposed by modern sanitary authorities, and even if he could get a house in Jamshedpur he prefers his primitive habits and the comparative sanitary licence of Jugsalai. This area has also since the strike of 1928 been the home of many persons who are temporarily unemployed, and are waiting in the hope of another job.

5. In 1923 a new civil sub-division of Dhalbhum with headquarters at Jamshedpur was created. There is a sub-divisional officer with two deputy magistrates for criminal and revenue work and a munsif for civil work. The sub-division was created mainly as a result of the recommendations of the Maude Committee and to meet the needs of the town of Jamshedpur. The administration and policing of the town is a heavy burden on the general taxpayer of the province, while the bulk of the taxation being income tax goes to the Central Government; were it not for the excise revenue from the town, it would be a dead loss financially to the local Government. The benefit it confers by providing employment is great, but more of the wages bill paid goes outside the province than remains within it.

II.—The strikes of 1920 and 1922.

The strike of 1920 was fully described in a communique by Government published immediately afterwards and may be given here *in extenso*.

Dated Patna, the 28th March, 1920.

"The following account of the strike at the Works of the Tata Iron and Steel Company, Limited, at Jamshedpur, is published for general information.

The strike commenced on the morning of the 24th February. There had been signs for some time past that some of the workmen were dissatisfied with their wages, and a deputation had waited on the General Manager and asked for a 50 per cent. increase of wages to meet the increased cost of living. Various other grievances were laid before him, of which the principal were that more liberal compensation should be given when an accident occurred in the Works, and that the dues of deceased workmen should be paid to their relatives more promptly. The General Manager explained to the deputation the impossibility of deciding offhand questions of this nature. He promised at once to make enquiries and to collect figures on which he could make recommendations to the Directors, and suggested that the members of the deputation might collect statistics on their own account. After the enquiries had been in progress about a week the General Manager learned that the men were becoming impatient and accordingly sent for the leaders who had previously waited on him and again explained the position to them. When the strike occurred Mr. Tutwiler was in Bombay where he had gone to explain matters to the Directors.

(ii) On the morning of the 24th February the foundry employees laid down their tools without warning; and their example was immediately followed by the workmen in other branches, and in less than an hour the entire body of Indian employees with the exception of the clerks, had ceased work. The men proceeded to hold a meeting at which they decided not to resume work unless an increase of pay was granted.

(iii) The Deputy Commissioner of Singhbhum, Mr. Scott, the Deputy Inspector-General of Police, Mr. Swain, and the Superintendent of Police reached Jamshedpur on the following day. The strikers at first promised Mr. Scott that they would supply sufficient labour to keep going the power house upon which the supply of light and water for the entire settlement depended. This undertaking was subsequently disregarded by the men, and the European employees of the Company were compelled for some time to work night and day to keep the power house at work and also to close down and pack the blast furnaces in order to save them from destruction. On the third day of the strike a considerable number of men gathered at the gates, apparently with the intention of resuming work, but were dissuaded by the strike leaders who were mainly up-country men. Though there had been no disorder up to that time, the situation at Jamshedpur where 30,000 men were on strike rendered it imperative that a strong force should be concentrated on the spot for the protection of life and property. A large body of armed and military police was therefore at once despatched to Jamshedpur and at the request of local Government 100 British Infantry were also sent by the military authorities.

(iv) The Deputy Commissioner on arrival at Jamshedpur at once proceeded to discuss matters with the strikers with the object of ascertaining what their grievances were so that definite negotiations could be opened with the Company. Apart from the increase of wages the men asked that a definite set of rules for the Company's service might be drawn up corresponding to those in force on railways and in Government service. They complained that when accidents occurred the men were dealt with unfairly and that in many cases accidents really due to trade risks were reported by the foremen as due to negligence of the workmen who were thus deprived of pay during their period of absence. Complaints were also made that, when men were accidentally killed in the works, their relatives and dependents were frequently kept waiting before they received their dues. On the 26th several gentlemen (including Mr. Surendra Nath Haldar, Bar-at-Law), arrived from Calcutta and interested themselves in the cause of the strikers who adopted them as their spokesmen. On the 26th these gentlemen with six of the strike leaders met the Company's officials and the Government officers. At this meeting the following agreement was arrived at subject to ratification by the strikers as a body:—(1) That the men should resume work voluntarily as they left it. (2) That no action should be taken or ill-will borne by the Company against the strikers. (3) That the Company would make no reduction from the men's pay on account of the days during which the strike lasted. (4) That the Manager would have his statistics ready by the 1st May and that he would consult the leaders of the men in each department before forwarding his report and recommendations to the Directors. (5) That the strike would be treated as if it never

existed, and that as a guarantee of restored good relations a mass meeting of the strikers should be called that evening, at which the General Manager for the Company the Deputy Commissioner for Government, and the four Calcutta gentlemen for the strikers, should address the men and set the seal on the agreement.

(v) At the workmen's meeting which was held in the afternoon the strikers who had been present in the morning and had themselves been parties to the proposed agreement, advised their comrades not to ratify it, and when Mr. Haldar and his colleagues attempted to address the meeting in order to persuade the strikers to accept the terms offered they were denied a hearing. In these circumstances the settlement proved abortive and the strike continued. The refusal of the General Manager to consider the redress of grievances until the men resumed work had the full support of the Directors of the Company.

(vi) Up to this period of the strike the conduct of the strikers continued to be good on the whole. Picketing had been going on from the first in order to prevent men who wished to do so from returning to work, and sometimes, if persuasion proved ineffectual, resort was had to intimidation or even to actual violence. Occasionally also speeches were made at the men's meetings at which the use of force was openly advocated, but generally the men appeared to be good tempered and not unreasonable in their attitude. From the beginning of March some of the men began to return to work and the number of these steadily increased, so that by the 7th March almost all the Europeans had been relieved at the furnaces and the power house. The workmen recruited locally in Singhbhum indeed were from the first entirely ready to return, and were only restrained by the influence of the Punjabis and other up-country men. During the first week of March the local officers including the Commissioner, Mr. Heycock, who reached Jamshedpur on the 2nd, the Deputy Commissioner, Mr. Scott, and the Deputy Inspector-General of Police, Mr. Swain, were untiring in their efforts to bring about a settlement. Assistance was also received from Mr. Byomkesh Chakravarti who arrived on the 4th but was obliged to leave again on the night of the 5th. The officials had throughout done their best to persuade the strikers to refrain from violence, and had used every endeavour to secure that the points in dispute should be clearly defined and fully discussed by the representatives of the Company and of the men. They also took a leading part in explaining the various offers of the management to the men in the vernacular. The allegation that they were not impartial but took sides with the Company is totally devoid of foundation.

(vii) On the 8th March a final offer was made on behalf of the Company in accordance with the terms approved by the Directors. The resumption of work was an essential preliminary to the grant of any concessions, but if the men returned by 6 p.m. on the 9th all the strikers including their leaders would be reinstated and paid their wages up to the date on which the strike broke out. Negotiations would then be opened regarding the other demands. The Company would reconsider the question of paying the men for the period of the strike, and undertook that there would be a definite increase in pay if the financial position of the Company permitted. When these terms were placed before a meeting of the men, they were most unfavourably received and the strikers announced that they would communicate their final answer on the return of their adviser, Mr. Byomkesh Chakravarti, who did not arrive at Jamshedpur until the 11th. On the 9th Mr. Haldar complained on behalf of the men that the management were trying to starve them into submission by refusing to sell grain to them, and asked that arrangements might be made to pay off at once men who wished to leave Jamshedpur. The baseless nature of the first complaint was explained to the men at a meeting by the Deputy Commissioner the same evening. For many months the company had supplied its employees with grain below cost price, the current local rate being from 6 to 6½ seers to the rupee whereas the company had been selling throughout the year at 7 seers. It could not continue to extend this concession to men who refused to work for it, but on the other hand, if the supply in the local bazar ran short, the Company undertook to sell grain to the strikers at the current market rates. In fact, however, there were large supplies of grain in the local bazar. It was also explained to the men that those who wished to sever their connection with the Company would be paid up to the date on which the strike commenced and given railway tickets to their homes. The crowd accepted Mr. Scott's explanation with good humour and then dispersed.

(viii) The crisis of the negotiations was reached on the 12th March, when the strikers intimated their final refusal of the terms which the Directors had offered. At the same time Mr. Chakravarti presented the men's final demands. They claimed an immediate increase of 15 per cent. in all wages which before the strike did not exceed Rs. 8 per day. This increase was to be liable to enhancement or reduction in accordance with the result of the statistics which the General Manager was preparing. No men were to be discharged and sympathetic consideration of

the subjects enumerated in the following memorandum was to be promised :—
 (1) Increment—35 per cent. and 50 per cent. (2) Provision against accidents—
 (a) Temporary. (b) Permanent. (c) Death. (3) Production bonus, general and
 labouring staff. (4) Annual leave. (5) Holidays. (6) Sick leave. (7) Casual
 leave. (8) Medical treatment. (9) Nurses and midwives. (10) Cattle dispensary
 and veterinary treatment. (11) Codification of service rules and gradations. (12)
 Number of working hours. (13) Treatment of Indian subordinates. (14) Town
 management. (15) Guest house. (16) Temple and Musjid. (17) Railway facilities.
 (18) The Department of Greater Extensions to be included. (19) Strike wages.

The general manager undertook to lay these demands before the directors.

(ix) The formal presentation of the men's claims at once accentuated the gravity of the situation. If, as Government were informed was probable, the Directors declined to entertain the proposals made, and adhered to their refusal to consider concessions until work was resumed, it was likely that disorder would occur. At the request of the local officers, therefore, Government despatched reinforcements of armed and military police numbering about 100 in all including 50 mounted men. The military authorities were also asked to hold in readiness a company of Indian Infantry who were subsequently despatched but did not reach Jamshedpur until the morning of the 16th.

(x) On the afternoon of the 13th it became evident that a decided change for the worse had taken place in the attitude of the strikers. A meeting was held at which inflammatory speeches were made, and in the evening determined efforts were made to prevent those of the local aboriginal workmen who had already resumed work from entering the works for the 10 o'clock shift. Strong pickets of strikers armed with lathis were established at various points, and a large crowd also assembled outside the south gate of the works. Workmen on their way to the works were threatened and the conveyance of a few men into the works by means of a motor lorry was deeply resented by the strikers. The Deputy Commissioner informed them that the lorry would not be used if they on their part undertook not to prevent by violence willing workers from coming to work. For the moment danger was averted but it was clear that the trouble would be renewed when the 6 a.m. shift came to work on the following morning.

(xi) Throughout the night large mobs armed with lathis patrolled the town and at 4 a.m. a very large body of strikers had collected outside the main gate and drove back by force the workers who tried to enter. Three times willing workers were brought in by means of the motor lorry under the protection of a strong escort, but lorry and escort alike and also the military police guard at the gate were heavily stoned, and at the third trip the road was barricaded by the strikers in two places in order to prevent the passage of the lorry. A little earlier the mob had accused the Deputy Commissioner of neglecting to take action on a list of men willing to leave Jamshedpur which Mr. Halder was supposed to have sent him, and refused to believe him when he asserted (as was the fact) that no such list had been received. Soon after the barricades had been erected the Commissioner came to the gate accompanied by Mr. Chakravarti who explained to the crowd that no list had ever been sent. Mr. Chakravarti endeavoured also to persuade the men to leave the gates and resume the discussion at a meeting elsewhere. The crowd, however, remained obstinate and refused to listen. Their attitude was as follows :—(1) They would not leave the Company's service (2) They would not return to work unless they received an increase of 50 per cent. in their pay. (3) They would not allow any Indian to work while the strike was on. (4) They would not vacate their position until those already working in the works were brought out.

Mr. Heycock and Mr. Scott reasoned with the crowd for about an hour, pointing out that their action was wholly illegal and explaining that, if they would not disperse force would have to be used to compel them to do so. Mr. Chakravarti and other representatives of the strikers agreed that no other course was possible and joined in the attempt to persuade the crowd to disperse, but without success. Finally the Commissioner gave the men one hour up to 11 a.m. to leave the gates, and informed them that force would have to be used if they did not disperse by that time. After further reasoning with the men Mr. Chakravarti informed the Commissioner that he could do nothing with them, but ultimately they dispersed just before 11 o'clock on an undertaking being given by the authorities that the motor lorries would not be used that day if the strikers would guarantee not to prevent by violence willing workers from returning to work. It was also agreed that a meeting should be held with the general manager in the afternoon.

(xii) The meeting was held but was infructuous. The men adhered to their new ultimatum of a 50 per cent. increase of pay, and when the general manager offered to pay them up to the day before the strike broke out so that they might be put to no difficulty while awaiting the reply of the directors in Bombay, they said they would consider it if two months' wages were offered. Throughout the afternoon a large

moving crowd was present opposite the main gate, and a strong guard was necessary to maintain the position. It was found impossible without precipitating an outbreak to move supplies for the European quarter by lorries or cars, and the strikers expressed their determination not to permit Indian labourers to enter the works or to let supplies go into them. They objected also to the servants of the European employees of the company entering the works.

(xiii) Early on the morning of the 15th an attempt was made to take out a train carrying coolies chiefly women, who desired to go to their homes from the works to Tatanagar, but it was discovered that the railway line had been blocked, and the train was forced to return. Between half past eight and a quarter to nine in the morning, news was received that a party of strikers was attempting to wreck the railway line, and the Deputy Inspector-General of Police despatched two troops of mounted police under Inspector Pearson with directions to round up the men who were destroying the line and to arrest as many as possible. The mounted police were directed not to shoot, but if resistance was offered to use their swords. At the same time an engine and railway carriage containing eight Gurkha military police with two British soldiers as guards on the engine was sent out along the line to the spot in charge of the Deputy Superintendent, Mr. Ashby, who was told that as many as possible of the offenders were to be arrested, but there should be no firing unless absolutely necessary in self-defence. A second party of mounted police was sent out shortly after the first with similar instructions, and was accompanied by Mr. Sawday, an employee of the company and an honorary magistrate, who acted as guide. This party and the party in the train reached the scene of the obstruction before Inspector Pearson's men had appeared. On arrival they found the line blocked with signal posts, pig iron and boulders, and a large number of men, chiefly Punjabis, were completing the work of obstruction. Forty or fifty were arrested by the police, and the train was then sent back to the works to bring reinforcements, Mr. Ashby and his party remaining with the mounted men. A large crowd, numbering about a thousand, many of whom were armed with *lathis*, rapidly collected on all sides, and although detachments of sowars were sent out in different directions to keep the crowd back, they soon came to close quarters with the police and surrounded them. The attack was of the most resolute character, and it soon became impossible to retain the prisoners, who escaped and joined the mob. The police were subjected to a severe bombardment with stones, which was continued when they commenced their retreat to the Running Room, about half-a-mile away. Many of the police were struck with stones, and Mr. Ashby was somewhat severely injured by a blow from a stone on the groin. The mob were warned more than once by Mr. Ashby that if they persisted he would be compelled to order fire, but these warnings were disregarded, and at last, as the police were surrounded and hopelessly outnumbered, Mr. Sawday being the only magistrate present, gave the order to fire. Mr. Sawday also gave the same order independently to his own party. Even then, however, the mob continued to press the police hard until they were close to the Running Room.

(xiv) Mr. Scott, the Deputy Commissioner, received the first information of the collision from two of the strike leaders, Gopi and Bhuta, who came to him at the director's bungalow at about 9.30 a.m. He at once proceeded on horseback at full speed to the Running Room but heard no shots until he had come close to it. He met the retreating party still pursued by the mob close to the Running Room and ordered the firing to cease. He sent the police back to the Running Room and went on alone to stop the further advance of the mob. At this point there was grave danger that the mob would advance and get into the works. The strikers were extremely violent and some were heard to shout that they would kill the sahibs even if it cost them their lives. Aided by the two strike leaders Gopi and Bhuta, who had accompanied him to the spot, Mr. Scott succeeded in bringing the mob to a standstill. Keeping them in front of him and refusing to allow any men to get behind his horse, Mr. Scott advanced as far as the weighbridge. At this point Inspector Pearson's party, which had not taken part in the fighting, appeared and was sent back by Mr. Scott to join the others at the Running Room. The crowd was now cooler, and after listening to what they had to say and persuading them to take the wounded to the hospital, Mr. Scott got them to leave the railway line and disperse. In all about 100 shots were fired. Five strikers were killed, 10 wounded severely, 3 fairly severely and 10 slightly.

(xv) This collision marked the end of the attempts at active intimidation in the vicinity of the works. On the following day men began to return to work in considerable numbers. The Bihari *mistris* and the Chinese skilled workmen were anxious to resume work, while the aboriginals who supply the bulk of the unskilled labour were frankly delighted to be allowed to work. On the other hand, evidence has been obtained that Punjabi and other up-country workmen had organized something approaching a reign of terror amongst the villages threatening to beat those

who returned to work, to burn their houses and rape their women. Confidence in the ability of the authorities to protect those willing to work was now restored, and the number of those who returned was greater than the management could deal with. On the 18th a committee of directors, including the Chairman, Sir Dorabji Tata, arrived at Jamshedpur, and after consultation with the General Manager, the following notice was issued :—(1) The Committee of Directors of the Tata Iron and Steel Company, Limited, headed by their Chairman, Sir Dorabji Tata, arrived at Jamshedpur this morning. (2) They have decided to give time to the men till 6 a.m. on Saturday, the 20th instant, to return to work. (3) If the men resume in sufficient numbers to enable work to be commenced the Committee will at 10 a.m. on Saturday, the 20th instant, announce the decision at which they have arrived as regards the concessions demanded by the men. (4) The Directors will leave Jamshedpur for Bombay on Saturday, the 20th instant, at 2 p.m.

(xvi) On the morning of the 20th practically all the men resumed spontaneously, and in accordance with the promise made the decision of the directors was announced. All men drawing Rs. 50 and less would receive a permanent increase of 25 per cent. in lieu of 10 per cent. bonus, while men drawing over Rs. 50 would receive a permanent increase of 20 per cent. in lieu of the bonus. Other demands including the question of bonus, scale of salaries, and rules regarding accidents and leave would be considered and a decision announced on or before the 31st May. This decision has apparently been accepted as satisfactory, and all is now reported quiet.

(xvii) The attention of Government has been drawn to an article which appeared in the *Anurita Bazar Patrika* on the 20th March last which, which purports to give an account of the incidents which took place on the 15th March from information supplied by a local correspondent. It is alleged in this article that a European servant of the company fired with his pistol on the strikers four times, at a moment when the strikers had quieted down, and there was no danger to any one of personal violence. This is a complete distortion of the facts. No firing at all took place until the party of police (with whom Mr. Sawday was) were compelled to fire in order to protect their own lives. Mr. Sawday himself did not fire until he was attacked by a man with an iron bar, and he then fired in the ground about six feet in front of his assailant. Even this did not turn the man, who was eventually driven off by a sowar, who rode at him with drawn sword. Subsequently during the general action Mr. Sawday had to fire four times more, but never except when the mob were pressing home their attack. No other European servant of the company fired at all. Again, it is alleged in the article that the strikers demanded back certain Indian workers who were being carried in a wagon which a European employee of the company was escorting accompanied by a number of cavalry soldiers. It will be seen from the above narrative that the firing had no connection whatever with the objection which the strikers raised to the conveyance of willing workers into the works in a motor lorry. The two events indeed occurred on different days. So far were the strikers from being in a peaceful mood when they tried to stop the lorry, that they stoned the lorry, its escort, and the police guard at the gate with great violence. No cavalry soldiers were at any time during the strike at Jamshedpur; the mounted men referred to were members of the mounted company of the Bihar and Orissa military police. It is also alleged that the attitude of the strikers on the 14th was one of determined persistency that their 'bhailok' should not be taken forcibly or under threat to work inside the factory. This is a complete misrepresentation. No attempt whatever was made at any time to compel anyone to work who did not wish to do so. On the contrary, the violence was on the side of the strikers, who forcibly prevented the entrance of willing workers into the works.

Another statement in the article is that the European gentlemen could not wait even 10 minutes before firing to send for the Commissioner, who was within easy reach. It will be evident from the account given in the foregoing paragraphs that firing was postponed until the last possible moment, and that there was no time to send for the Commissioner or for any other official. In fact, moreover, the Commissioner could not have been brought to the scene for at least 20 minutes. It is stated in the article that Mr. McNabb, another employee of the company, appeared at the head of a body of soldiers and that, although there was no competent authority to order the soldiers to fire, they nevertheless did so. The fact is that Mr. McNabb did not accompany any party of the police on the 15th, and was nowhere near the scene of the occurrence when the firing took place. No party of soldiers fired at all.

(xviii) In view of these stories and of others which have gained currency it is desirable that the facts should be clearly understood. It is not the case that any attempt was made by or on behalf of the company to compel unwilling persons to work or to bring men by force within the works. The regular troops and the armed and military police who were sent to Jamshedpur for the protection of life and property were at no time used for any other purpose. When the police were at last compelled to fire on the strikers they did so only in self-defence when attacked by

a large and angry mob. With the exception of two British soldiers who formed part of Mr. Ashby's party in the train no regular troops took part in the firing. From the evening of the 13th until the morning of the 15th the behaviour of the strikers was most threatening, and the fact that a collision was averted on the 14th was due solely to the mingled tact and firmness of the local authorities. Great credit is due in particular to the Commissioner, Mr. Heycock, for his handling of the situation on the 14th and to Mr. Scott, the Deputy Commissioner, for the resolute manner in which he faced and quieted the mob on the 15th, when the police party were driven in. The fact that he was successful in his attempt shows clearly that during the negotiations of the previous three weeks he had gained the confidence and respect of the strikers."

2. There is little to add to the above statement. It is clear that the immediate cause of the strike was economic. The price of living had been increasing rapidly since the war all over India, and in the town of Jamshedpur there are conditions which make cost of living higher there than elsewhere at any time. It is too large a concentration of people to live in that comparatively poor country even if an industrial population could produce their own food. All necessities have to be imported by rail or from some distance. This must have been aggravated at the time by the influx of workmen employed on the construction of the "greater extensions" which nearly doubled the size of the works. Added to that it was a time of scarcity in the province; for two years the outturn of staple crops had been poor, and there had been practically a famine in cotton cloth. It is true that Messrs. Tatas even then were paying considerably higher wages than were paid elsewhere for similar work; for months the company had been selling both grain and cloth to their own employees below cost price, and the 10 per cent. bonus mentioned in the papers as given since 1917 appears to have been compensation for high prices, and was not a production bonus. There is no material on which to make any estimate of how the wages paid compared with a living wage; the ruling fact no doubt was that the purchasing power of a man's earnings was less than it had been before. It seems to have been established at least by negative evidence that no outside influence of any kind had been at work in bringing about the strike. It is gratifying that immediately on the termination of the strike the Directors of the Iron and Steel Company passed a resolution expressing their appreciation of the services of the officers of Government not only in the matter of preserving law and order but also in the assistance rendered by them in bringing about a termination of the strike.

3. The settlement reached on the 20th March had left much for future consideration, and the records of the time show that the final settlement was not reached without friction and unrest. On the 20th May, the directors made a further announcement regarding (i) service rules regulating employment, discharge, disablement, sickness and leave, and (ii) provident fund rules. It was not well received. The announcement made no allusion to the points to which the men attached most importance, viz., strike pay and the extension of the bonus on production to all ranks. The service rules gave satisfaction, but the provident fund rules were unacceptable largely because they were misunderstood. The men held that the increase of wages granted at the end of the strike were a temporary arrangement pending examination of figures and they expected a further increase. Finally, the company made announcement to the following effect:—

(i) The following increase in wages were announced:—

Monthly pay or equivalent daily wage.						Increase.
Rs. 15 to 40	..	..	..	..	..	20 per cent.
Rs. 40 to 75	..	..	..	..	..	15 per cent.
Rs. 75 to 150	..	..	..	..	..	10 per cent.

The increases were to be calculated on the actual rates of wages drawn on the 29th February, 1920, excluding the 10 per cent. bonus granted in 1917, and were to be in addition to the permanent increases granted in March last.

The net result is shown in the following table:—

Monthly pay or equivalent daily wage.				Percentage granted in March.	Percentage granted in June.	Total percentage of increase.
Rs. 15 to 40	..	..	..	25	20	45
Rs. 40 to 50	..	..	..	25	15	40
Rs. 50 to 75	..	..	..	20	15	35
Rs. 75 to 150	..	..	..	20	10	30

official supervision for indigo and sugar plantations inspection in North Bihar. In South Bihar there is no indigo or sugar industries. (iii) In mill and other industrial areas no such arrangement exists.

29. Industrial diseases prevail only in mines and in Assam tea gardens. I have already said that malaria and Kala-azar prevail in Assam. Cholera, malaria and other tropical diseases prevail some time, but not always in the year. Cholera commences from April and lasts till June. In some years it continues up to July. Malaria commences in North Bihar from September and lasts till December.

30. Sickness insurance is not practicable. (iii) I would suggest the engagement of Ayurvedic and Tibbi physicians at all the industrial centres. Indian medicines will be much more acceptable to labourers than western medicines. Besides this the Indian medicines will be cheaper. I, therefore, strongly recommend that Vaidas and Hakims should be engaged to treat labourers according to Ayurvedic and Unani systems.

31. No scheme for allowing maternity benefits exists in Bihar. . . . In 1926, while I was a member of the Bihar and Orissa Legislative Council, this matter was brought up before the Bihar Council. But the Bihar Government opposed this scheme on the ground that this was an all-India subject and fit to be dealt with by the Legislative Assembly. Although the motion was carried the Government has done nothing in the matter since then. . . . (iii) I would strongly support legislation on the lines suggested by Mr. N. M. Joshi, and on the lines of the resolution adopted by the Bihar Council in 1926.

V.—Welfare.

36. In Jamalpur a high English school exists, managed and controlled by the railway company. Such schools exist at Jamshedpur and Dhanbad also; but what is most required is primary schools meant for workers and their children only. Some night primary schools should be opened for adult workers and half-time workers.

37. I am in favour of making provision for old age and premature retirement; so far as I know nothing exists at present. Something like provident fund system at Jamshedpur, Jamalpur, Dhanbad, Dehri on Sone and other railway workshops should be adopted. But this system is not practicable anywhere else.

39. It is extremely desirable that there should be a Statutory Miners' Welfare Fund.

VI.—Education.

41. There is no arrangement for Industrial and Vocational training for workers. Of course, there is a Mining Institute at Dhanbad, but that is for training of educated men and for employment as officers in mines. There is one Technical Institute at Muzaffarpur, in North Bihar. I have myself been several times in it. I have discussed the future prospects of students reading in that school with the teachers of that school. They candidly admit that the future prospects of their students are dark and unknown. Necessary livelihood-earning arts are not taught in that school, such as, for example, motor-car repairing and fitting new motor-cars, and other similar arts. In my opinion the existing arrangement is unsatisfactory. It needs much improvement. If the Government really wants people to be trained in such arts, then boys should be trained in Jamalpur workshops and other railway workshops, and should be taught how to make and repair railway engines and other necessary materials required for railway service. Some boys should be taught in the workshop of Messrs. Arthur and Butler and Co. in the art of fitting and repairing motor-cars and other engines.

42. If industrial education be given to workers, then such workers will earn higher wages and remuneration, and with the increase of remuneration and wages the standard of living of workers will certainly improve. The standard of living of workers will certainly improve. The standard of living depends upon the means of a person. If a person is ill-paid he leads a very miserable and starving life. But if he is paid handsomely his standard of living is higher. I must frankly confess that the earning of average British labourers is much higher than ordinary educated clerks in Government offices and, therefore, the standard of living in England is much higher than that obtaining in India. It is too much to compare the standard of living of Indian labourers with those of British labourers. British labourers are adequately paid for their labour and there is a large number of elected members of Parliament to look after their interests. In India, labour has not got elected representatives in Councils to look after their interests.

IX.—Hours.**A.—Factories.**

55. In indigo and sugar factories, labourers generally work for six hours for half-day wages. In special seasons they have to work for whole day. In that case a labourer has to work for ten hours a day. But in cigar and Indian liquor factories labourers have to work for the whole day generally at the rate of ten hours per day.

56. In indigo, sugar, and cigar factories, labourers have to work seven days a week. They have no holiday for rest.

57. Sixty hours' restriction is good from the point of view of workers and it may not affect industries at Jamshedpur or Jamalpur railway workshops, but it will be impracticable in indigo and sugar factories.

58. So far as daily limit is concerned there is no harm if time limit is fixed for half-day work and whole-day work, but I must state that a labourer has to do nearly two-thirds work in half-day time and for this he is paid two-thirds of the whole day.

59. There is no harm if reduction in maxima is made at Jamshedpur, Jamalpur, in cigar factory and in Indian liquor factory, but in other factories it is not a practical scheme.

60. (i) In big workshops and factories generally two-hour intervals are allowed for meal times. (iii) Generally between 11 a.m. and 1 p.m. (iv) So far as I know no holiday is given in any factory.

61. No rest day allowed.

B.—Mines.

63 to 72. Generally, a labourer has to work for 10 hours a day in mines. There is no holiday or rest day. I am of opinion that in mines a labourer should work for 6 days per week and for not more than 60 hours a week. I would advocate the making of statutory provision in mines fixing daily limit, weekly limit, and holidays for the benefit of labourers. Working in mines is much more difficult than in other factories and workshops.

X.—Special Questions.**A.—Factories.**

85. No double employment exists in factories.

86. There is no arrangement for training of young adults and facilities for apprenticeship in factories in North Bihar. No factory exists in South Bihar.

B.—Mines.

91. In my opinion women should be excluded from working in mines. Underground works in mines affect the health and morality of women workers. Withdrawal of women from mines will not affect the industry but it may affect the economic conditions of women workers. If women be allowed to work in mines vigilant eyes should be kept on their health and morality. When these women workers are pregnant they should not be allowed to work in advanced stage of pregnancy and adequate maternity allowance should be given by mine owners before and after child-birth.

XII.—Wages.

96. (i) Prevailing rates of wages in factories in North Bihar per day for each labourer was from 1 anna to 6 pice a day, but since the Bihar Provincial Kisan Sabha took up the question in 1918 the rates have increased. Besides this the propaganda of Mahatma Gandhi for peasants and workers have brought European planters and factory owners to their sense of responsibility and so some factories now pay even at the rate of 3 annas per day. The same is the case now with sugar industry also, but the payment has increased only in some factories and in other factories low payment still continues. (ii) In agricultural areas, labourers are paid in grain. Both the whole-day and half-day labourers are given breakfast, which is called in the vernacular Pani Playee, that is for taking water. The rate is usually 3 to 4 chhattaks per labourer. Then the half-day labourer will be given

2 kucha seers, that is one-quarter of a Pucca Passeri as wages and half a kucha seer food for meals. Thus the average earnings of a half-day labourer varies from 2½ to 3 annas per day. As for the whole-day labour a labourer gets ½ seer for breakfast, 1 kucha seer food for mid-day meal, and 3 kucha seers for wages for family members. This comes to 4 to 5 annas per day. But there are special classes of labourers employed by agriculturists, viz., blacksmiths and mallahs. The former is employed for making implements of agriculture, ploughs, and wooden materials for houses, and the latter are employed in thatching houses. These labourers are paid 6 annas a day besides mid-day feeding amounting to 1 kucha seer for food.

98. The question of sending amounts to villages arises only in the cases of labour at Jamalpur and other E.I. railway workshops, and at Jamshedpur and Dhanbad. At these places labourers spend half their earnings for their own maintenance and remit half their earnings home for their wives and children.

100. In works under Public Works Department and Local Bodies and also building and earthwork in railways it is contractors and sub-contractors who employ labourers and make payments. As regards extent I may say almost all works are done through contractors and sub-contractors. Labourers are paid from 4 annas to 4½ annas a day. The effect of such payments is that the contractors and sub-contractors make large profits out of the works done by labourers.

105. Minimum wages may be fixed in industrial areas and factories, but it is not practicable in agricultural areas where payments have been made in grain by immemorial custom.

110. Labourers are not permanent servants. Hence no question of leave arises. If he is absent he will not be paid for that day. No employer encourages leave for which he will have to pay.

111. I would welcome fair wages clause in public contracts given to contractors and sub-contractors under the Public Works Department, Local Bodies, and Railways.

XIII.—Industrial Efficiency of Workers.

112 and 113. Indian workers have much improved in efficiency in industrial works. If Indian workers be properly trained in skilled labour they can successfully compete with any foreign workers.

114. In my opinion comparisons are affected not by health and physique or standards of living, nor of climate, but by the opportunities to use scientific machinery and plants. . . . But of course some education is necessary. In England primary education is compulsory. In India it is not. If any member brings this subject before any Council the Government of the day stands in the way. Therefore the fault lies not with the Indian workers but with the Government.

XIV.—Trade Combinations.

122. (iii) The State is as much indifferent and unsympathetic towards labour unions as the private employers. The State looks down with absolute contempt towards these labour and workers' organizations. Since 1920 the Bihar Government has never cared to nominate any representative of the peasants and workers to the Bihar Council, but on the other hand, the Government has been nominating big capitalists and landlords as members. Unless and until universal franchise for adult persons is not introduced the cause of the peasants and workers will suffer much.

XV.—Industrial Disputes.

123. . . . There was an upheaval among indigo plantation labourers in Champaran a few years ago. But for the first time the workers of Champaran were crushed by prosecutions and persecutions. In the second time Mahatma Gandhi intervened and some settlement was brought about. By this settlement the workers of Champaran in indigo plantations have been to a certain extent benefited. By constant strikes and lock-outs there is much loss to industry and to workers also.

124. (vi) In my opinion there ought to be Industrial Courts, Trade Boards, and Joint Industrial Councils as they exist in other countries. There is no reason why these Boards and Councils should not be created for Indian workers.

126. The attitude of the Government towards trade combinations and industrial disputes is wait and see. Unless there is an imminent danger of breach of peace the Government will not intervene. The Government intervenes only with Law and Order formula. If the Government takes into its consideration the cases of millions of dumb and innocent workers then nothing is expected to happen. But when matters grow worse and the followers of Mahatma Gandhi intervene on behalf of the poor workers then the Government also intervenes and settlement is made between the followers of Mahatma Gandhi representing the workers and the employers and the Government.

XVI.—Law of Master and Servant.

127. No effect has been produced by the repeal of Workmen's Breach of Contract Act so far as the interests of the workers are concerned. The repeal has neither harmed nor benefited the labourers.

132. . . . I have visited all the five divisions of the Province of Bihar and Orissa but I have not come across any use being made of the Employers' and Workmen's Disputes Act.

XVII.—Administration.

133. So far as I know the Local Government and the Provincial Legislature has done nothing in this matter. Whenever this question is taken up in the Provincial Legislature the reply of the Government is that this is a central subject. During my time as a member of the Bihar and Orissa Legislative Council when labour questions were taken up by some Hon. non-official members, the reply of the Government was that this question should be dealt with by the Central Government.

138. Workers are not aware of factory legislation. In my opinion vernacular translations of the factory legislation should be distributed among workers to acquaint them with factory legislation.

139. (i) So far as I know there is no staff of the Government to inspect indigo factories. In other matters it is the Director of Industries who inspects some factories. The staff for this purpose is not adequate. . . . (iii) The administration is neither vigorous nor efficient. In my opinion it is useless and not worth the money spent by the Government over it. . . .

140. In mines at Dhanbad there is an Inspector of Mines. There the staff is better than in ordinary industries and inspection there is much more efficient than in any other industrial centre. The reason is that there is always danger to human lives by working in underground mines. . . .

XVIII.—Intelligence.

146. Future developments of industries and the improvement of the conditions of workers depend upon the recommendations made by this Commission and the action taken on such recommendations by the Government. In my opinion industries should be better developed in India and should be helped and patronized by the Government and the conditions and wages of labourers should be adequately improved. In foreign countries where the Government is responsible to the people it is the Government who gives aid to new industries and patronizes them. But in India it is impossible unless and until the Provincial Governments and the Central Governments are made responsible to the people of India. This touches constitutional question. But it is necessary for the future development of India and Indian industries. So unless and until India attains self-government of the types enjoyed by the self-governing Dominions of Canada, New Zealand, and Australia, it is impossible for India to develop its industries and remove the long-felt cry of unemployment. Hence I would recommend the adoption of the Nehru report by the British Parliament. . . .

KODARMA MICA MINING ASSOCIATION.

I.—Recruitment.

1. (i) The major portion of the labour employed in mica mines and factories is local, being partly agricultural and partly industrial. There is no great migration.

2. (i) Local labour returns to their villages daily. The Purdesi labour returns to their homes about once in a month. (ii) About 50 per cent. of the whole labour

employed is permanent. The other 50 per cent. is partly agricultural and partly industrial. They only abstain from working in the mines during transplantation and harvesting.

3. (i) No definite methods of recruitment.

7. (i) There is practically no unemployment in the Mica mining area of the district. Unemployment to a certain extent has been caused by the prohibition of women labour in the mines under Government Notification No. M.1055 of 1929.

(iii) Allowing the same privileges for women labour to work underground in the mine as in the coal mines.

8. . . . (iii) General absenteeism is practised more or less during agricultural operations and after pay day : (a) At times want of labour in the mines and factories is keenly felt due to cultivation, marriages and festivals. (b) Yes, seasonal. (c) About three months and about Rs. 45.

II.—Staff Organisation.

10. Every management or firm is divided into divisions with a divisional manager. The mines of that division are managed with the help of a number of competent persons. The manufacturing work is done in the factory of each firm.

11. From the most capable in the staff.

12. (ii) There are ample facilities for promotion of workmen provided they are intelligent and willing.

13. Very cordial. The general manager of the firm can always be approached by even the meanest of labour with ease.

15. (i) Mica is given on contract for the purpose of splitting and cutting. Raising and sinking contracts are sometimes employed in the mines. (ii) Splittings are issued to sub-contractors in some cases. (iii) Weight and quantity is checked when the splitting is returned. (iv) Increased output of splittings on the one hand and provision of work for many Purda women and girls.

III.—Housing.

16. (i) Housing is provided by employers for Purdeshi labour (i.e., those coming from a distance), and quarters are provided for supervising and clerical staff, darwans, and menials.

18. (i and ii) Temporary houses are built near mines for the use of the workers.

(iii) They obtain their water supply from rivers and streams for washing. Drinking water is supplied from wells.

IV.—Health.

23. . . . (iv) Diet consists generally of rice and dal and bread and mohua, mokai and chattu. It is regarded as fairly wholesome.

(v) Labourers both male and female are generally of good physique, with a fair amount of power of endurance. . . .

24. (i) One hospital started and managed by the largest firm in mica, in Domchanch. (ii) There is a Government charitable dispensary and hospital in Kodarma, where the mica mining firms make liberal contributions towards its upkeep. (iv) A midwife is employed in the local hospital.

25. (i) Labourers used to fight shy of hospitals, but now are gradually acquiring the habit of undergoing treatment by doctors in cases of disease. (ii) Very scarcely.

26. (i) Unnecessary in mines but are provided in factories. (ii) Pure drinking water is supplied to the labourers from wells. (iii) In tanks, rivers and streams.

29. (ii) There are periodical outbreaks of cholera in some parts. Arrangements for eradicating the evil and checking it promptly are not always satisfactory.

IX.—Hours.

A.—Factories :—

48 hours a week, working eight hours a day for six days in the week.

59. Maxima should not be reduced.

60. (i) (*a* and *b*) As work in the factory is not strenuous no intervals of rest are needed. Work generally commences at 9 a.m. and closes at 5 p.m. Labourers take their morning meals at home and again in the evening. (ii) Does not suit mica factories. (iii) Present system most suitable. (iv) One day in each week of seven days and on days of local festivals.

B. Mines.

63. (i) 48 hours a week working eight hours a day for six days in the week both by custom and agreement. (ii) Same as above; 54 hours underground and 60 hours aboveground, including overtime.

64. Six days in the week.

65. Good, both on workers and on the industry.

66. Maxima should not be reduced.

67. Suitable.

69. (i) As work in mica mines is not incessant, labourers automatically get intervals of rest after blasting. Miners or drillers get greater intervals of rest during removal of debris. (ii) They take their meals during morning before starting for work and take tiffin during rest intervals. (iii) One day in a week and also on days of local festivals.

X.—Special Questions Relating to Women, Young Adults, and Children.

A. Factories.

81. Not in force and not at all suitable.

84. Children not engaged. (i) Nil. (ii) Minimum age thirteen years and maximum sixty.

86. Young boys and girls are taught to learn the work of splitting and cutting.

87. Instead of being dismissed they are promoted and get an increment on reaching full age.

B. Mines.

90. Good.

91. Women should not be excluded. (i) Regulations for prohibiting the employment of women underground in mines are not at all suitable. (ii) Employers are having great hardship in replacing females with male labourers and the cost of production has increased 50 per cent. (iii) Has caused unemployment amongst women, and there is great hardship amongst them. (iv) Gradually, if considered necessary.

XII.—Wages.

96. (i) Skilled labourers in mines average seven annas a day, unskilled labourers (including women, girls and boys above thirteen) four annas a day. Male labourers in factory average eight annas a day. Female labourers in factory average six annas a day. (ii) wage level is lower than in the industry.

106. (i) No fines.

107. (i) Wages are paid by some firms weekly and by some fortnightly. (ii) Within a week after completion of period of payment. (iii) Not required. (iv) Wages can be claimed any time by labourers and are always paid.

110. Leave taken on all local festivals and marriages and Sradh ceremonies.

XIV.—Trade Combinations.

117. (i) An organisation of mica miners, under the name of Kodarma Mica Mining Association is in existence. The principal mica mining firms are its members.

N.B.—Substantially the same information was given in memoranda submitted by—

The General Manager, F. F. Christien and Co., Ltd., Domchanch.
Mr. F. Lethorn, Superintendent, The Chota Nagpur Mica Syndicate, Kodarma.
Messrs. R. K. Sahana and Sons, Kodarma.

FATHER LIEFMANS, RANCHI (endorsed by Dr. L. Van Hoek, S.J.,
Bishop of Ranchi).

The labour of the Ranchi District is found chiefly in the tea plantations—in the country called by them *Bhotan*, i.e., the tea gardens of the North of Bengal and also in *Assam*.

Next in importance is the stream of emigrants leaving about October–November for Calcutta and the surroundings, Santragachi, Howrah, Matiabruz, Titaghar, Serampore, etc. They are in demand for earth work, garden digging and so on.

A few go to Asansol and Jamshedpur.

Some also go to do forest work for the Government in the Andamans, and others go to the mines of Raipur in Gangpur State.

The labour of Ranchi District is mostly unskilled.

I.—Recruitment.

1. (i) The last census showed that out of 13 lakhs, inhabitants of Ranchi District, 3 lakhs were enumerated in the tea gardens of the Dooars and Assam.

From September, 1928, to September, 1929, the Tea District Labour Association alone received 23,000 for the Dooars, 18,000 for Assam.

(ii) The cause of emigration is poverty—the soil is poor and the pressure on the soil increases yearly so that want alone is the sufficient cause of emigration.

2. (i) Generally, the labour comes back after one year, although about 3 per cent. leave the country for ever and settle in the neighbourhood of tea gardens.

4. Family life often suffers from emigration—(a) Young girls, unmarried, are enticed and disappear among the mixed population of the gardens; (b) Married girls are enticed by grand promises and are often lost to their husbands; (c) Young men, the props of an old couple, are taken away and leave their parents in poverty.

6. Assam not proving as attractive as the Dooars, the sardar (recruiters) use sometimes illegal means to obtain labour. The greater distance of Assam from Chota Nagpur and former abuses have contributed to render Assam less popular than the Dooars—a runaway boy or girl is easily found in the Dooars, but in Assam there is often no hope to discover runaways.

Agreements are sometimes not signed in Ranchi but in the tea estate of Assam. This way of acting seems to diminish the freedom of the coolie—he might easily be induced to sign on for three years out of fear of compulsion. The agreement should be signed before starting to avoid any suspicion of undue pressure.

Young girls (married or unmarried) when recruited for Assam against the will or without obtaining the consent of the parents or husbands, are taken by devious ways to the depôt and are often passing in the open with the sardar who may easily, under the circumstances, commit immoral actions with these girls.

Sometimes, too, the better to avoid pursuit and detection by the parents, one sardar passes on his victims to another and this one again to another (sardar) so as to render it difficult to trace the fugitives.

It is a common thing for a sardar to change the names of his victims and to declare them his near relations. When the girl or boy has reached Assam, the planters are rather loath to send them back, as by doing so they lose the fruit of the recruiting expenses and have to pay the journey back. It should be made illegal for sardars to supply alcohol to intended victims. No depôts should be allowed except in towns near a railway station; depôts not so situated are not easily supervised and runaways or illegally recruited people cannot be recovered.

Inspection of depôts should be frequent and minute, even for the depôts where the Dooar labour is sent, else morality will suffer. A depôt keeper should not be allowed to supply his recruited labour (men and women) with alcohol; for instance, one or two hundred coolies have to wait for a train, the gentleman in charge orders his subordinates to fetch liquor, these force the liquor on the coolies. Then the gentleman, and perhaps his wife and children, come out and sit in the verandah, the coolies are fetched and made to dance and the gentleman enjoys their antics. Then the coolies are sent back, but better draw a veil on what happens at night. This incident is not supposed to be a general occurrence, but an extreme example—an exceptional incident.

(iv) No communication is allowed between the missionary residing in Chota Nagpur and the planters, so that the missionary cannot direct his intending emigrants on an estate where they will be happy and remain together.

This is a great defect of the law. A missionary is bound to care for the moral and spiritual welfare of his people, and with the present Act he is not allowed to assist his people and is left helpless when their people are taken to different estates or to estates where the conditions will not satisfy them or prove harmful to them. The result is not favourable to the Assam tea industry, for the missionaries must, under the circumstances, discourage emigration to Assam. Not only does the Act diminish emigration but those who emigrate cannot do so without deterioration, as they often are left guideless.

Sardars are paid too much and they gain their money too easily. Hence, sometimes they do not care whether they act legally or not provided they receive their pay.

Simple coolies are sometimes on leaving the plantation urged to become sardars. Money is advanced to them and if they do not return to the estate they are threatened with the police. Many coolies cannot resist easily the offer of an advance hence the obligation of recruiting other coolies should in no way be fostered on them. If they themselves ask to be appointed sardars then, of course, the case is different.

According to the Act, unmarried girls of sixteen are not minors, but if eighteen and married they are minors, since they require their husband's leave to be recruited. Unmarried boys and girls are considered by the aborigines as minors. The Act might perhaps be changed in this way: "For the purpose of this Act all unmarried young people are presumed to be minors."

(v) The Act need not be changed very much. It might be altered in such a way that persons truly trustworthy would be allowed to help in recruiting only the people well known to them. The recruiting for Assam if made too free will surely lead to great abuses; therefore, only a few changes should be made in the Act and later on a few more if judged necessary. It is then suggested that certain trustworthy and responsible persons be allowed to assist in recruiting. Sardars would still be used according to the Act and the labour would be sent to the usual depôts.

These chosen persons, quasi agents, would be allowed to correspond with the planters of Assam about recruiting. Then the quasi agents would send to the plantation a few intelligent men to work there for a short time and come back with a sardar's certificate. These sardars would be allowed to recruit with the help of the quasi agent the people in whose welfare the quasi agent has the right and obligation to take interest. This recruited labour would be sent to the nearest depôt by the sardars. The quasi agent should have the right to enquire from the planter about the welfare of his people.

The granting of status of quasi agent would depend on the Deputy Commissioner, who might at any time, when reasonable cause offers, suppress the certificate of the quasi agent. The quasi agent would be strictly forbidden to receive any salary or commission.

7. (ii) (c) Unemployment as to the ordinary labour is due to the failing of demand for it. Many indeed would be willing to emigrate for six months or even for one year, if the salary were good, but the offer is too great for all to find work.

The ordinary labour of Chota Nagpur is good at digging and forest work. Only great want or high salary will make them sign on for one or two years. Their attachment to their holding, however small it may be, makes them dislike long term engagements.

As it is, in many cases an exodus to the tea plantations leaves them with little real profit. They bring back money indeed, but much of it will be spent in buying the rice they did not obtain from their fields during their absence and in buying seeds for the next season. The tea plantations provide them with a ready means to tide over a bad season but do not substantially improve their lot either morally or financially.

7. (iii) The best method to alleviate distress would be of an agricultural kind, and is, therefore, outside the scope of this enquiry.

Another method would be to give petty contracts of the Public Works Department to the labour directly.

8. (iii) (c) Grogshops, if removed to a great distance from the plantations, would not be the cause of time and wages lost. Leaving out the labourers who sign on for a six months' term and work hard—the others work in general not more than five days in the week. Were the grogshops farther away, they would work more. The majority of tea labour sign on for one year.

III.—Housing.

16. (i) In tea plantations the housing is good. (ii) Private landlords do not provide any for seasonal labour, but the coolies of Ranchi District who work in the Babu gardens around Calcutta live often in leaf huts made by themselves.

IV.—Health.

23. (i) The mortality in the tea plantations does not seem to be higher than in Chota Nagpur.

24. In the plantations the labour is provided with medical help. Some native-owned gardens are said to be less well managed.

29. (ii) The labour coming back from the surroundings of Calcutta, bring often with them Kala-azar and other diseases unknown in Chota Nagpur.

V.—Welfare.

32. The tea planters offer a school house to the labour, but I think many do not really desire the coolies to accept the offer, neither do the coolies shown any eagerness to accept it.

IX.—Hours.

D (a) In the tea plantations the hours depend on the amount of work the planter can offer. A strong man can finish 2 hajiris (tasks) in 5 or 6 hours; if work be available such a man would work 8 or 10 hours.

XII.—Wages.

96. One hajiri is paid 4 annas; an industrious worker may finish 3 hajiris in one day, except in the dry season, when the same amount of effort would mean a gain of about 8 to 9 annas only.

98. Thirteen lakhs yearly are sent home by money order in Ranchi District.

100. Contractors should be obliged to pay in full the wages at least once a month, and especially at the end of the work. Some promise to send by money order the amount of wages left over and do not send it.

RAI SAHEB DEVENDRA NATH SINHA, Vice-Chairman, District Committee,
SANTAL PARGANAS, DUMKA.

I.—Recruitment.

1. (iii) The district of Santal Parganas is inhabited by a large number of aboriginal and semi-aboriginal tribes, their proportion to the total population being over 60 per cent. Peculiar laws and regulations have been framed by Government to induce these thriftless aboriginal people to keep them to their homes and not abandon their hearth and home entirely thoughtlessly. In spite of this, however, we find the aboriginal tribes, notably the Santals, do go abroad in search of labour.

Besides this regular recruitment by the Association there are other private agencies who recruit labour for work in coal mines in the adjacent districts of Burdwan and Manbhum and Birbhum, and their number is estimated to be between 3,000 to 4,000; the people who take to mining being mainly *Bauris*—a low caste Hindu. There is casual emigration of aboriginal labour from the district in connection with jute and paddy harvest in *Borim*, as they call the part of Bengal where their labour is in demand. In this way also about 4,000 people go abroad, though for a short time only.

(ii) In recent years, however, a change has come upon the migratory people. The aboriginals of the district, who are generally thriftless, do not lay by anything in a year of good crop. The result is that in a lean year they have to borrow from non-scrupulous *Mahajans* or *Baniays*, who during the harvest season take away whatever they could lay their hands on to satisfy the debts he had given. So practically the poor cultivating aboriginal ryot finds himself in a vicious circle of repaying in fat years what he borrowed in a lean year and in trying to make the two ends meet finds himself in the same position no matter whether his lands brought in a good or bad crop. Disgusted with life dependent on land that could not sustain him he naturally turns his eyes to labour abroad. The tea plantations offer such people a good avenue for work. The terms and conditions under which the plantations recruit labour, especially under the Labour Association, prove attractive.

The aboriginal people are noted for their fecundity, and for a people like these pressure on the soil is liable to be very acute, necessitating a search for employment by members of a family who are unable to work remuneratively on the family holding. The aboriginals of the district, in fact, have in the past been driven to seek work in connection with paddy and jute harvests in Bengal, dock and building works in Calcutta, coal mines and on tea estates; the volume of migration varying according to the necessities of each season. When there is plenty of food owing to bumper harvests, migration is small, but in seasons of scarcity the people literally clamour for labour.

2 and 3. The system that obtains both in the Dooars and Assam may be called the *Sardari* system. Owing to this system being in vogue here a proportion of emigrants is constantly returning to recruit their relatives. These Sardars can be taken to be an effective link between persons who have gone to the gardens and that of their relatives who have not. I have known of men who have gone to the plantations with a view to knowing things first hand and then if conditions there proved suitable to come back and take away as many of their relatives as are inclined to go. In many cases the whole family has migrated. The gardens, I understand, repatriate a large number of short or fixed term recruits from this district on the expiry of the term at the garden expense. The fact that so many of the people of this district willingly go over to the plantations is a sure testimony to the conditions under which they are recruited and the sort of life they are required to live in the gardens. In the olden days, when the *Arkuti* system of recruiting was in vogue, people used to suspect the intentions of all the recruiters; the system that attached no responsibility to the agency that recruited labour became in course of time a byword for deception and intrigue. The very name of *Arkuti* (recruiter) still stinks in the nostrils. To maintain contact with villagers, what is wanted is a responsible agency. A person who recruits directly should be known to the people whom he recruits, and the people under whose guidance and control the recruiter works should be men of standing and position: exactly what we find nowadays among the Tea District Association employees of the status of superintendents. In fact, from the point of view of the labourer the *Sardari* system is in my opinion an ideal system—a system by which a person is recruited by an individual who himself returns to the garden with the recruit and is responsible throughout for any fables or misrepresentations he may have perpetrated. The garden *sardar* who recruits is of the same class as the potential recruit and is not merely financially interested in recruitment as would be a professional recruiter or the officials of an employment bureau. The system also whereby a local agent and a forwarding organization register the recruit and look after creature comforts in the way of clothing and food is calculated to give the intending emigrant full confidence in his future.

All labour recruited from our district is not done according to any fixed principle. There are persons who come from outside the district and recruit labour under false pretences just to get something out of the firm or company that cares to employ them. To be effectively conducive to the good of the labourers, the agency or organization whatever it may be, it should be responsible for its doing to a legally constituted body whom law and public opinion can easily touch. It would have gone a good way towards the betterment of the lot of the labourer if all recruiting agencies come under some such bodies as the Tea District Labour Association.

4. The recruitment of labour for distant districts such as Assam and Dooars certainly affects the family life and tends to lower the moral tone of the people who are snatched away from the family circles. Instances are not rare when husband goes away in search of labour leaving his wife in the village to be cared for by the parents of the husband or more commonly by the parents of the wife. If they are young—the recruits are generally young able-bodied men, for they have to pass a medical test before they can be sent away—the wife plays the fool and the husband scents this on return and the result is a rupture in the home. In spite of precautions

being taken it is not uncommon to come across young couples in intrigue with each other coming to a depôt and describing themselves as husbands and wives go away to the gardens. The extent of the disturbance is not negligible and can only be minimized by resorting to the practice of recruitment of family groups and avoidance of single male recruitment.

The gravest evil results from the breach of this family tie and the presence of harlots. The victim of separation from the husbands, in a small Santal hamlet, tends to lower the morality of the whole people. Subject to social ban put upon her she defies openly the conventions of their society and contaminates the whole village by her presence. The sooner this single male recruitment ceases the better for the people and persons employing labour. In the same way when a woman goes to the garden single, which is very rare though, she is looked down upon by her community on her return and not finding her position enviable begins to look upon morals as something she would like to maintain but others do not allow her to do so. She joins the ranks of her less fortunate sister whose husband had gone away. The Santals of the old type resent recruitment for labour only on this ground.

RAI BAHADUR SARAT CHANDRA ROY, M.A., B.L., M.L.C., Vice-Chairman,
District Board, Ranchi.

1. *Origin of Labour.*—(i) A considerable migration to the labour districts takes place from the Ranchi district.

There are three streams of migration, from this district, viz. : (a) Annual migrations to Calcutta and its suburbs and also to certain Bengal districts such as Rajshahi, Malda, etc., in search of temporary employment, such as digging tanks, making embankments, working in fruit gardens, etc., from November to March or April, when the aboriginal raiyats have no agricultural work of their own at home. (b) Similar temporary migration to the tea-gardens of the Dooars. (c) Migration to Assam tea-gardens.

(It may be noted that very few people from the Ranchi district go to work in the neighbouring coalfields of Hazaribagh and Manbhum districts, or to the neighbouring industrial town of Jamshedpur—as the conditions of work there are not liked by the aborigines of this district who are accustomed to work in the open air.)

(ii) Causes of the above-mentioned three streams of migration : (a) and (b) As the aboriginal population (Mundas, Oraons, Kharias, etc.) depend for their subsistence mainly on agriculture, and as in the case of a large number of aboriginal families the produce of their fields is not sufficient to maintain them throughout the year, the annual migration to the labour districts is considerable. Debts incurred to meet occasional ceremonial expenses such as marriage, the rapid swelling of debts contracted on high rates of interest from usurious money-lenders, heavy costs of occasional litigation, etc., drive some aborigines to migrate temporarily to the labour districts. Years of drought and famine necessarily add to the volume of migration. (c) *Migration to Assam*—Migrations to Assam, now generally on agreements for one year, are normally not popular among the aborigines.

In many cases unscrupulous recruiters induce young men and women and simple unsophisticated families by false hopes of easy labour, cheap living and good prospects, to migrate to the tea-gardens of Assam. The recruiters sometimes ply their victims with drink to secure their consent. Not often young men who are in love with women (sometimes other people's wives) whom society forbids them to marry or consort with, on pain of excommunication, are induced to migrate with their sweet-hearts to Assam under false names. Very few aborigines of this district voluntarily migrate to Assam with full knowledge of the conditions of work, net income, housing, etc., in the Assam tea-gardens.

(iii) Since the abolition of indentured labour, conditions of labour in Assam tea-gardens have improved to some extent ; but such labour is yet far from popular. Temporary labour as tank-diggers, etc., in Calcutta and its suburbs and in certain other Bengal districts is getting more and more popular as wages are gradually increasing and as the labourers are much better treated and can return home at will, and the conditions of work are more favourable. Labour in the Dooars gardens is preferred to that in the Assam gardens as the treatment and conditions are reported to be much better than in the Assam gardens.

2. *Contact with Villages.*—(i) *Extent and frequency of return.*—Those who go to Calcutta and other Bengal districts for temporary labour return home in March or thereabouts after a stay of six months or less. They generally go in company with other fellow-villagers or tribe-fellows and relatives and thus even when temporarily away from their villages, they are hardly cut off from the social moorings of their native land.

Most of those who migrate to Assam generally return home as soon as they can get free, and would hardly think of going back again unless under exceptional and unavoidable circumstances.

Those who go there to avoid social stigma or excommunication or for similar other motives generally settle down near the tea-gardens and hardly return home. So too do those who fall into evil ways in the gardens and begin to live in illegal union with some woman. A few of the more intelligent and ambitious among the aboriginal labourers are tempted by the prospects of recruiter's emoluments to attach themselves permanently to the gardens and work as recruiters or Sardars. These latter pay periodical visits to their villages for the purpose of recruitment by methods which are, as often as not, undesirable or reprehensible. A very few, owing to superior intelligence, a little education, and exceptionally good work get employment as clerks, etc., and stay on.

3. *Methods of Recruitment.*—(i) So far as labour in Calcutta and Bengal districts is concerned, the aborigines go direct and of their own accord, and seek out employment for themselves or with the help of their tribe-fellows who had been to those places before.

So far as recruitment to the tea-gardens is concerned, recruitment is carried on by *Sardars* and their underlings, not unoften by undesirable methods. Recruitment for the Dooars gardens is generally free from objectionable tactics.

(ii and iii) The first step for effecting improvement would in my opinion be to abolish the system of employing recruiters or *Sardars*, and to effectively put a stop to the demoralizing practice of giving commission or remuneration of any kind for recruitment of labour.

The next step that I would recommend would be to take the help of such honorary workers for the social and economic uplift of the aborigines, as Missionary bodies (like the Catholic Mission and Protestant Missions of Ranchi) and social improvement associations like the Chota Nagpur Improvement Society (*Unnati Samaj*) who, I expect, would in the interests of the labourers, agree to keep registers of persons willing to go to the tea-gardens after full knowledge of the conditions of labour, remuneration, mode of living, cost of living, and prospects, if any; and no coolie will be taken to or admitted into any tea-garden without a certificate from the head of such missionary bodies or Social Improvement Society that it is a case of voluntary emigration with full knowledge of the conditions, prospects, etc.

The third measure that I would recommend would be to arrange for quarterly visits to the gardens (at the cost of the garden authorities who should pay suitable travelling and halting allowances) of representatives of these Missionary bodies and indigenous Social Improvement Associations to enquire into the condition of the labourers, and discuss with the garden authorities how the grievances, if any, of the labourers may be removed and conditions of labour may be improved. These representatives will forward to Government reports of the condition of the labourers during their visits and suggestions as to any improvement.

4. *Extent and Effects of Disturbance of Family Life.*—So long as the present system of recruitment through *Sardars* continues, the effects of disturbance of family life will continue to be in many cases quite disastrous. I have known several cases in which these *Sardars* have taken advantage of temporary quarrels between husband and wife in secretly inducing the wife to fly to some Assam garden under a false name. In most such cases, after her temporary fit of anger or annoyance has subsided, the woman finds or is induced to believe that it is too late to return, and she has to repent for the rest of her life. In a few cases I have known elderly women being taken away in this way leaving her husband and grown-up children in a huff. And in such cases, the name, etc., is changed and so the husband, even when he seeks to pursue his wife to Assam, cannot generally find her out. I know of one instance in which such a husband went to seek his wife in Assam, leaving his children at home, and never returned home himself. Mean advantage is taken in this way by these recruiters even of temporary quarrels between father and son, or mother and daughter.

Sometimes though a man goes to Assam under stress of poverty and with the avowed object of returning home, after a time, with savings, he falls into evil ways and never returns home; and his wife unable to maintain herself and her children, when remittances from her husband diminish and at length disappear, has to take another husband, and thus the family is broken up. Freed from the moral restraints of society

that existed in his native place, an aboriginal coolie not unoften succumbs to the various evil influences of Assam tea-garden life. Some live in illegal union with women whom society would not permit him to live with or marry; and thus they can never return home.

BIHAR AND ORISSA COUNCIL OF WOMEN.

I.—Recruitment.

3. (i) Method of recruiting young women and young girls should be thoroughly investigated.

(ii) Proper provision should be made for their care at the depôts and on their journeys.

6. (iv) Facilities should be afforded and help and encouragement given to coolies to send remittances to their families. The coolies require assistance in the actual completion of the forms. Difficulties of this nature have occurred to our knowledge.

IV.—Health.

24. (ii) More provision should be made for the clerk and teacher classes for the treatment of phthisis at a moderate charge.

(iv) Compulsory regular training of midwives should be enforced. Annual courses of training, of ten days to a fortnight, should be compulsory throughout the province to all practising midwives. Trained welfare workers who would tour and give lectures where necessary should be appointed.

25. (ii) Medical facilities would be more utilized if the hospitals were made more attractive for the women by the provision of special care for women and more female nurses and attendants.

27. (iii) In view of the increasing employment of men and women, used to an open-air life, and the consequent spread of disease, especially phthisis, strict attention should be paid to the provision of adequate light and ventilation of factories.

31. *Maternity Benefits.*—We are strongly in favour of maternity benefits being given to women employed in industrial concerns for at least a week before and after confinement.

V.—Welfare.

33. Where women are working in lac factories, etc., we recommend that a woman welfare visitor should be employed to look after and report on the health and environment of the women workers.

Mr. G. E. FAWCUS, M.A., C.I.E., O.B.E., Director of Public Instruction, Bihar and Orissa.

2. (Item V, 36.) The returns submitted to me for the year 1928–29 show 42 so-called factory schools. Of these 17 are colliery schools maintained by the East Indian Railway near Giridih, 10 are schools supported by various collieries in the Jharia coalfield, 5 are supported by the owners of mica mines near Kodarma, one by the Peninsular Tobacco Company at Monghyr, 2 by the Bengal Iron and Steel Company near their mines in Singhbhum, and the others are 6 night schools and a commercial school at Jamshedpur.

Of the above schools only those at Jamshedpur really cater for adults. The others are intended for children. The concerns connected with the schools are said to employ in all 2,647 boys and 678 girls. The number of pupils who are employed by the concerns, or are children of employees, is 1,718 boys and 41 girls; there are 64 other boys attending the schools.

The schools at Giridih are fully described in Pamphlet No. 2 of the Bureau of Education. When I wrote the article for that pamphlet there were 31 schools, but the number has fallen because the Hazaribagh district board is in financial difficulties and has greatly reduced its grant.

Having regard to the interest which the administration of the East Indian Railway has shown in the schools at Giridih, and in the education of its employees generally, it is at first sight surprising that the list of "factory" schools includes no schools at Jamalpur. The Jamalpur labourer, however, appears to return by a cooly train to his village as soon as his work is over, and the more skilled labour is provided for by the technical school, which, as already noted, is under the control of the Director of Industries.

The night schools at Jamshedpur and the colliery schools in the Jharia coalfield have been described in the memorandum prepared by the local Government.

3. (Item VI, 40.) There is nothing special to record under this head except as regards Jamshedpur. Jamalpur is well provided with schools of the ordinary type, maintained or aided by the East Indian Railway, and the Jharia coalfield contains the usual high, middle and primary schools, neither better nor worse than others. The financial position of the province makes all its schools less efficient than they should be.

The educational position at Jamshedpur in 1921 was described in Pamphlet No. 11 of the Bureau of Education. Since I wrote that pamphlet the schools have been reorganized. Much more attention has been devoted to the primary schools, and the boys who pass out from these schools can now proceed to middle schools and so to the high school, in which, by the way, elementary science has been made a compulsory subject of instruction. The company's contribution to the schools has risen from about Rs. 52,000 in 1920-21 to Rs. 82,000, and the Government grant from about Rs. 7,000 to nearly Rs. 18,000.

I have been in close touch with Jamshedpur for many years, and can testify to the real interest in education taken by the company, and its readiness at all times to co-operate with Government in the matter. The sum of $1\frac{1}{2}$ lakhs, provided half by Government and half by the company for the recent improvements to the buildings of the middle and primary schools, has made those schools not only easier to teach in but much more attractive in appearance, and this fact alone will, I have no doubt, tend to swell their roll number.

SHREE BIHARIJI MILLS.

ROLLER FLOUR OIL RICE DALL MILLS AND FOUNDRY.

4. *Dietary and Physique.*—Indulgence in intoxicating liquors and drugs among the labour seems increasing. Such practice generally tells upon their health and a greater portion of their daily earnings is wasted away in intoxication. Number of such liquor and drug shops should be reduced by the Government, moreover they should be kept at a distant place from a factory so that they may not fall within the easy reach of the labour. This will improve both the intellectual and physical power of the labour.

9. *The effects of 60 hours restriction.*—Such restriction is considered to be not beneficial to local industries. This has increased unnecessary labour expense of the employers. Some suitable scale of actual time of working rendered by the employees during the whole of their time when they are on duty, should be drawn up. For instance, Ghani attendance and coolies working in the oil mill, though their working period is 10 hours a day yet the actual time of their work will in no way exceed $6\frac{1}{2}$ or 7 hours a day and the remaining 3 or $3\frac{1}{2}$ hours of their working period they spend in idle talks and in a light slumber. There is a mutual arrangement among them to look after the work of their fellow worker also, besides their own whenever during the working hour their co-worker intends to go out to attend his own private business and thus they manage to go out one by one in their respective turn. But such is not the case with a Fireman working with a boiler. He has to work continuously till the time of his work be over. Consequently in our opinion the weekly period of work for the labour employed in industrial concerns such as oil mill, etc., should be increased from 60 to 70 hours or so per week and it is needless to say that such modification in the Factory Act will save many industrial concerns.

Intervals allowed.—As most of the local factories are worked by means of labour divided into certain groups or shifts working alternately at an interval of 4 or 6 hours, there is no necessity of making any periodical stoppage of their work but in case of ordinary labour working continuously for 8 or 9 hours a day, an interval of half an hour is allowed to them for rest and tiffin. Special attention is given to the fact that in no case their period of work should exceed 6 hours at a time.

THE LABOUR FEDERATION, JAMSHEDPUR.

I.—Recruitment.

1. *Origin of Labour.*—Jamshedpur being one of the largest concentrated labour employing industrial town people all over India regard this place as a direct field of employment. Practically all provinces are represented on the skilled and semi-skilled jobs. Unskilled labour is confined mostly to Central Provinces, Chatis-Garh divisions and to Behar and Orissa Chotta Nagpur division. Previous to 1918 Chatis-Garh labour was unknown in Jamshedpur. Since that time it has largely replaced aboriginal labour from Chotta Nagpur. The causes assignable are presumed to be violence used in the first strike of 1920 and the excitement before and after the event. That seems to have frightened these timid folk. It is claimed that the aboriginal labour from Chotta Nagpur was more sturdy and hard working than the one that later on replaced it.

The Chatis-Garh contingent first arrived in 1918 due to famine conditions in Raipur District and since then the stream is continuously and steadily pouring in.

The causes of influx of skilled and semi-skilled labour so far as all the communities represented in Jamshedpur are concerned together as a whole can be said to be one or the other of the undermentioned causes:—(a) Dearth of Industries in their own provinces. (b) Better wages. (c) Extensive turn over of labour and better opportunities of employment. (d) Prohibitive laws against holding lands in their own provinces. (e) Escape from indebtedness and consequent poverty. (f) Native daring.

Of recent years the *Pathan* population has appreciably increased due to the preference shown by employers to recruit this class of labour in times of labour troubles as being the least likely to be interfered with by the striking workmen.

2. *Contact with villages.* (a) *Unskilled labour.*—During cultivating season from June to September there is great exodus of this class to their native fields. An appreciable dearth is always felt during these times. This class had not yet divorced itself from its lands, incomes from which they always supplement by annual labour in industrial towns. Given a preference they would revert to their native soils. Their holdings are uneconomical and they must fall back to manual labour in towns. It has been that brothers and relatives will change turns between minding the land one year and seeking employment the next.

(b) *Skilled and semi-skilled.*—Their employment does not vary on the aforesaid cause, but their stability does not vary the less. Marriage and deaths are two factors that take them to their native places and their absence averages about two months.

3. *Methods of Recruitment.*—Formerly employment was made directly by the officers having vacancies, but as that system led to various abuses and corruption, a central employment bureau was substituted, with, according to labour view point, very little change or success.

At one of the local factories in Jamshedpur obtains a *Sardar* system of recruitment, partially adopted for some time at the Tata's plant also. *Sardar* system is uneconomical to the growth of orderly organized system of Trade Union.

The best possible solution from a labour point of view and we do not see why it should not be from employers' point of view, is to establish an employment bureau in conjunction with a labour union that can render service both to labour and employer.

7. *Unemployment.*—A certain number of unemployed is always visible in town. At times getting aggravated due to various causes:—(a) Strikes or lockouts and retrenchment in other industries and factories. (b) Famine or floods. (c) Restriction on employment as prevailing at present. (d) Men who had taken settlement and service money from the Tata company after the last industrial dispute.

Lines of solution suggested of ending of industrial disputes by:—(i) Conciliation Boards. (ii) Opening up of temporary relief measures by way of road, embankments, tanks, etc., constructions by public funds. (iii) Better sources of distribution of

information of possible requirements in other towns than where such accumulation of unemployed takes place. (iv) Establishment of labour commissioners in provinces with suitable facilities and machinery for obtaining requisite information.

Unemployment insurance would be a success where labour is a stable proposition and in the case of workers of a skilled nature if unemployment insurance premium is either paid by the employers or if the premium is made sufficiently low to be paid small premiums out of the workers' wages, or through State agency or partly a combination of each of the three mentioned above.

8. *Labour Turnover*.—The biggest factor militating against continuous employment is the periodical or seasonal return of workers to their native homes for marriages, funerals, crops. Leave is obtained for a certain fixed period and invariably overstay, losing not only chances of their existing jobs but also the accrued privileges of previous service. Lack of native education and proper distribution of information are responsible for this attitude of mind. The chances of repairing the ravages on return are daily getting restricted.

II.—Staff Organization.

(10 and 11). At present labour has no voice in the selection or form of the departmental or administrative organization. But one thing that labour in Tata Works at Jamshedpur feels is that there has been such a multiplicity of supervisory staff, both higher and subordinate ones, that much time and effort is needlessly wasted through conflicting orders. In fact the ratio between supervisory staff and actual working men would be found to be hopelessly out of proportion.

The managing staff is mostly recruited and appointed by the board of directors, apparently helped by certain technical staff stationed in England and America.

12. The method adopted so far is one of benevolent discretion which has led to a growth of a supervisory staff, which both in bulk and in intelligence cannot be regarded as an extra efficient organization. The selection has been haphazard, and one of the most disorganised type, with no basis either of education, training or talent. At present a technological institute of a sort has been in existence for some years, and the batch of trained officer class students that were originally intended to be turned out have neither properly fitted in nor given full opportunity for the work they have been trained for. These men are regarded with a suspicious eye by the covenanted staff, who have apprehension of being ultimately replaced by these people, and undisguised contempt by the locally recruited staff for their lack of proper knowledge and training of detailed routines of the departments. The students themselves in many cases do not seem to either feel or make themselves comfortable, and their value to the company seems problematic. Retaining of lower workmen staff must always remain a matter of great difficulty, due to lack of reading and writing ability, though not of innate ambition or talent. In many cases these grave handicaps have resulted in many a deserving man being superseded or discharged. Facilities for learning the elements of reading and writing are either non-existent or very restricted, and social customs have put not a few difficulties in the path either.

13. Relations generally at present are very strained between the immediate supervisory staff and rank and file of workers. The reasons are many and vary. The majority of the immediate supervisory staff have been ignorant and illiterate, more concerned with their power and authority than with any welfare of either their employer or their labour; corrupt, tactless and unfair, as a result the organisation cannot render smooth service. The workmen are in no mood to swallow every thing that comes from their foreman. As a possible solution, and in place of departmental enquiries for redress of grievances which have been found to be unsatisfactory, recently shops or departmental committee system has been introduced at the instance of the Labour Federation, and though it would be too early to judge of the results, it can safely be said that they have not been found unsatisfactory so far. On the contrary, some departments definitely aver that these committees are working splendidly. The Committees are composed of seven members, four nominees of Labour Federation, i.e., trade union, and three nominees of the company who are actual manual workers, and there is no representation of the clerical or foremen staff. As a result there is not endless arguments nor any kind of coercion possible within the ranks. The handicaps, of course, to these committees have not all disappeared. They are:—(a) Interference from the superintendent of the department or of the foreman. (b) Apprehension of possible loss of prospects in service through over zeal in discharge of his duties as member.

The decision of the shop committee is not final, either on the employer or on the applicant for redress. Both the parties can appeal to what is known as Board "A" composed of two direct representatives of the Labour Federation; that means two

representatives of a trade union and two representatives of the steel company of the employers. A final appeal has also been provided for in the shape of a board composed of the general manager of the steel company and the president of the Labour Federation, i.e., trade union. All questions dealing with discharge, suspension, promotion, grade, etc., are referred to these shop committees for disposal, and in fact every question relating to dispute between employer and the employees is within the competence of these shop committees. We are very hopeful of real good work being achieved through the medium of these shop committees if the employer takes their finding in real good spirit to the promotion of lasting goodwill of the parties.

15. A trade union should not like the presence of a contractor as an intermediary for the simple reason that labour, at all events, should be in direct contact with his employers. The contract system we know of in the steel plant covers work that company has found uneconomical or undesirable to be done by itself. Our view is what could be performed economically by contractors could, *pari passu*, be done, or ought to be done equally economically if not more cheaply by the employers themselves. One of the disadvantages of working under contractors so far as labour is concerned is the ease with which the liability can be evaded by the contractor or the employer in respect of compensation for accidents and expense and trouble involved in fastening such liabilities. Then, again, contract labour is deliberately kept steadily moving and fluctuating so as to escape liabilities for leave and other privileges which militates against growth of a stable working class. Further, contractors are utilised as strike breakers and blackleg suppliers. Again, a close supervision cannot be kept over the various abuses to which contract labour is always subject as, for example, sweating, frequent dismissals, etc.

III.—Housing.

16, 17, 18, 19, 20, 21 and 22. Tata Steel Company provides accommodation for 95 per cent. of its higher staff, but facilities for working people are hopelessly inadequate, the company being able to meet only 30 to 40 per cent. of the requirements of the company's total working staff. Private agency has not received any kind of encouragement from the steel company either by way of guaranteed returns to the capitalist or providing facilities to small money holders. We have known of cases where kacha houses have been constructed and subsequently sub-let to persons who had not houses to move into, and the steel company has come down upon the owner of the house either to get ejected or submit payments of enormously enhanced rents. This is not certainly affording facilities to put in more houses through their agencies when the company itself is not in a position to undertake the task itself. The company's scheme of helping the employees desirous of building their own houses has not proved much of a success looking to the numbers so far built, due to absence of proper rules by the company, too much interference by the departments, and last but not least due to the sense of insecurity regarding tenure of service, no adequate provision being made of transfer of holding in case of leaving the stations. In absence of proper housing facilities it is difficult to imagine how the workmen could ever feel comfortable either at work or off work. The situation does not conduce to peace of mind, and has been therefore responsible for a great deal of anxiety both to the workmen, employers and the Government. The housing problem has ever been acute, adding to the shortage has been the hardship of an inadequate accommodation provided in the various types of houses built by the company. The R N, M1, M2, N1, N2 type of quarters do not seem to provide accommodation that is consonant with modern thought and tendency to provide workmen with. The houses are one room about 10 feet square, with or without a slip of varandah about 2 feet by 3 feet wide, in that is to be accommodated a family with one or twenty members, the company not caring to worry as to how many occupy that quarter, neither is there any machinery for taking into consideration the number of family members before allotment of a quarter which is at present based solely on service and rate. As a result in town we find much unhealthy congestion and unhealthy agitation.

Water supply is hopelessly inadequate. Busties are still practically without water supply. In the various quarters water taps are not provided as a rule one tap to each quarter. There is one tap to several quarters, leading to frequent quarrels and bad feelings in the town, as the supply is at once inadequate.

The sum total of these handicaps react very adversely on the moral tone of the workman and his family, and to all intent and purposes we find ties of family life so loose that one might boldly assert that there exists no family life at all. One of the visible signs is the number of cases in criminal courts of offences dealing with women.

IV.—Health.

23. *General Health at Jamshedpur.*—Situating, as it is, on a widely extended area, does not compare unfavourably with any town of due equal population. If at all the balance would be in favour of this place. The Steel Company has supplied good medical facilities both for the workers as for the general population, though in cases of accidents and injuries, and often enough in cases of general sickness, there is a marked tendency to go to one's native place and have recourse to their own system of village medicine. In many cases where modern medicine has failed we have instances of good recovery through indigenous medicines which might be due, though we would not assert, to the healing value of indigenous drugs. It is also likely that confidence in the medicine may be one of the potent causes of cure.

24. A central hospital with a couple of branches for out-door patients is at present provided by the company. One would like to see an extension of these out-door patients' treatments in some of the outlying busties, where there is a definite compact population. As in many cases people continue through ailments, rather than go to the nearest branch, the extremely conservative nature of the people has not yet changed, and we would like to see medical facilities brought to the very door of the sick and the ailing.

The Government has a hospital with very limited accommodation and we think, looking at the size and population of the place, the Government could, and should, provide its quota of medical relief. As quite a decent percentage of the population has other employment or provision than serving in the various industrial undertakings in Jamshedpur at various outlying busties, would like to see medical help extended in the form of women doctors or trained midwives to minister to the wants and comforts of women and children. A direction in which efforts have not been adequately made, not only in this place, but throughout the company.

To a certain extent facilities must be provided for private medical practitioners which at present is restricted, due to a mistaken policy pursued by the company.

26. Sanitary arrangements in the town leave much to be desired. In busties it is a positive menace to develop well being of residence there. Leaving aside the northern town or European quarters where a complete flush system is provided, in town and other localities sanitary accommodation is next to non-existent. There may be one latrine to several quarters, or in others no latrine at all. In Sakchi and Kasidih a few central latrines is all that is provided, an institution that is held in biggest abhorrence by the people of the locality. In busties with a growth of population, all open spaces gradually come into occupation and the inconveniences suffered by the people can be more imagined than described. The company has made no provision to meet the necessities of the people in that direction.

Pumping facilities for providing drinking water for outstanding busties can never be an economical proposition for the company, as the outlay on the pipes and pumps would be, and has been, prohibitive. A more useful solution would be in the nature of digging wells, artesian for preference, which would permanently solve the drinking-water question.

The question of providing facilities for bathing and washing do not seem to have much disturbed the thoughts of the company. Any odd nalla with water that may be green with dirt, still affords the only chance to people, and we see sights of washermen using the same unhealthy source for cleaning clothes, that would put to revolt the conscience of a malariologist and other medicologists. In States and elsewhere we have seen special washing facilities provided to workmen in their departments, and also cabinets furnished for putting their clothes and other articles of wear. Some have even gone to the extent of providing soap and napery. We would like to see similar facilities provided here on the initiative of the employer himself, and not wait till a radical change takes place in the conservative habits of the people, for nothing succeeds like the compulsory setting of good examples.

30. Insurance against sickness and consequent unemployment we consider as one of the essential items of an employer's liabilities, and a duty duly to be discharged towards his workmen. The employers get insured against accidents in their workshops, and we do not see why they should not take additional steps to protect the workman as he does to protect himself in either case. The legislature ought to take up this matter seriously and compel employers to take sickness policies which would afford a halfway house protection towards old age, pension, and unemployment insurances, which are clearly duties of the State towards its subjects. We fully realise the handicaps the employers have at the present moment in the shape of insecurity of tenure of his workmen—but that is of his own doing—against the migratory habits of the people, the still existing dislike, towards the western medicine and other causes. But the realisation of advantages by the workmen of this system of sickness insurance would go a great way towards changing the habits of the workmen that are mainly based on ignorance.

31. Maternity benefit has recently been introduced in Jamshedpur, in the Tata's as well as other subsidiary industries and though it is premature to opine about the extent to which it will be availed of, there can arise no two opinions as to the wisdom and necessity of the step, however belated, it may have been adopted. It would not be out of place to use a certain amount of moral suasion to enforce compulsory expert medical help just before and after the event.

V.—Welfare.

32, 33 and 34. With the exception of educational facilities and provision for old age and retirements we believe all welfare work should be administered by workers agencies towards which the employer should be made to contribute to a very substantial share. This is desired in the interest of the employer himself to a certain extent since it will free the employer from the taint and suspicion of bribery ordinarily attached to employers' efforts in this direction. It has been found essential to provide for crèches for babies during the period the mothers are at work and that there need not be any objection to their being left to the management of some trade union existing in the place. Recreative amusements, physical culture, picnics, refreshments are items in the welfare programme which involve expenditure of large sums of money which can be undertaken at present only by the employers, since the trade union movement is still in its infancy and consequently in great financial wants, but which could be made a success only when administered through workers' agencies which are the only sources liable to inspire confidence.

36. Employers should provide facilities for education, general or vocational, to their employees for nothing contributes to a stability and understanding of their workmen, than an intelligent workman himself. Though in this country a few can read or write, no man is too old to learn, and provisions of night school or off day day-class are known to create wonders in the cultural advancement of the workmen. Such provisions are practically non-existent, but we do not see why a start cannot be made in this direction.

37. Old age pensions are generally regarded in the nature of State obligations and so long as Governments go on spending the major portion of their revenue on military expenditures, no money could ever be found towards discharge of one of the main obligations and excuses for which Governments exist.

On the question of premature retirement we hold some definite views. Due to invariability of prevailing insecurity of tenure in most industries in this country of workmen services at any stage, no matter if he has grown grey in the service of his employers, we consider it a most essential thing that if a workman binds himself into the service of his employers for seven or ten years, the employers should be under an obligation to compensate the workman by way of gratuity in case of his voluntary resignation or dismissal by the employers or in case of death to pay him an amount in $1/12$ of the period of service put in.

VI.—Education.

Where industries exist in areas far away from established towns and cities, we believe the employer should be under an obligation to provide for facilities for education both of the employed and un-employed portion of the town, which he more or less established for his own purpose.

Employment should be provided for workers as well as for workers' children to take up vocational training according to their bent of mind, and to supplement the work they actually do at the factories resulting in the case of the worker's increased efficiency for the employer, and in case of workers' children, of a well-defined useful resource of recruitment.

There could not arise two questions of the advantageous reaction on the employer of educational facilities provided to his workers in the matter of increased efficiency ratio.

VII.—Safety.

43 to 50. There is much left to be desired in the matter of arranging for safety codes in the various factories and industries. There practically existed no safety rules until the advent of the compensation acts which led to a certain amount of caution being exercised by the employers, not so much out of regard for human lives or limbs as in order to escape from financial obligations imposed by the act. The act merely prescribes certain compensations to be paid to the injured party or to their dependents, but there does not seem to be any provision made of a drastic nature to impose stringent regulations upon employers to adopt measures for safeguarding human

lives and limbs. There are factory acts just as there are mines acts, but they are always liable to evasion by the employers, and as opinions will always differ as to the degree of measures adopted, we consider that an effort should be made now to take the other course of making the cost of any accidents inside the factories so very prohibitive to the employer that it would pay him to install safety appliances which taken together may cost him half the burden. In other words the compensation to be given to the dependents of the killed or the maimed is at present so negligible that there is practically no incentive to the adoption of safety first measures.

Of course in this country at this stage of industrial development workmen have not acquired that "Safety Sense," and this ignorance is responsible for quite a decent percentage of accidents, but the time has passed when one can escape the liability under the excuse of workmen's negligence. It has been found, under the modern thoughts on factory legislation, that the employers being more organized, more intelligent, and with greater resources, it is in the matter of things more equitable and just to impose the obligation of insuring the safety of the office workmen on to the employers than to throw it on the workman himself. In America the employers' responsibility to his workmen is made so heavy and effective that they spend millions of dollars in carrying educative "safety first" propaganda, which has been found more paying than meeting any expenses after compensation in respect of injuries received in their factories. The display of posters in prominent places, holding of departmental safety committees and safety classes are some of the methods adopted to educate the workmen with very successful results. It should be made obligatory in every plant where more than fifteen people work and machinery is used as prime movers to have compulsory first-aid and medical dispensaries to meet cases of accidents, except in large centres and towns where facilities of ambulance and hospitals are available.

In every plant we consider it advisable to have a safety committee, composed of representatives from employers and workmen, who should report where safety appliances are needed and also to enforce such recommendations. Copies of such reports should be forwarded to the Government factory inspectors, who should satisfy themselves regarding the report and verify the enforcement. In places where any Trade Unions exist, they should as a rule be permitted to appear and lead evidence, in any enquiry regarding an accident either by the safety committee.

It has been noted that after a certain number of hours about ten on average of continuous work, after which the fatigue point having been reached, human body and senses become more or less benumbed and are not so alert and mindful of chances. There must be given a period of rest and any compulsory work beyond that period is not only uneconomical for the employer as dangerous to the employee. Conditions of work should be enforced under sanitary and healthy rules of plenty of light and air and we know of cases in America where even bands are provided to stimulate the senses leading to efficiency and activity. Our factories in this country are mostly ill-lighted, ill-ventilated, and lacking in modern appliances or accident prevention and health preservation. In most all machine shops where machines are turned, ground, or polished there are not visible exhaust arrangements, whereby minute particles of metal and dirt floating in the air are taken out by means of exhaust fans and the atmosphere inside the plant kept constantly cleaned and renovated. Such sort of safety precautions and appliances should be enforced.

VIII.—Workmen's Compensation.

51-54. We have a Workmen's Compensation Act since the last five or six years and though some sort of relief has been secured under it, the remedy has not been exhaustive nor up-to-date. We understand the act is to be further amended and we trust that all the latest provisions of such acts as prevail in Western countries will be incorporated in the light of experiences of the working of the act in this country. We prefer that no limitation of time should be placed on the filing of compensation claims, the report of accident in the books of the employer which should be compulsorily kept should be construed as due notice of a claim against him. The employer should be compelled to keep a register of the dependents and nearest relatives of his employees to whom he should be bound to give a notice of any accident sustained.

Certain minimum compensation should be fixed in fatal cases depending on the value of the life lost and not commuted according to the wages drawn. We recommend in case of unskilled labour a sum of not less than a thousand be fixed for fatal cases and not less than 1,500/- in case of permanent disability supervening loss of arm or leg or both the eyes. As for skilled labour the compensation should be computed on wages over an enhanced period than what is enforced at present subject to a minimum whichever is greater. At the present moment compensation is calculated on 30 months' wages in fatal cases and maximum of 42 months' for permanent disabilities, which in the case of unskilled labour works out to a figure that is

pathetically negligible. These periods should be enhanced and a minimum should be determined in the light of suggestions made above. We are quite mindful of a possible adverse effect likely to be produced on minor industries or on small investments of any stiffening of the compensation chances, but we urge that that employer does not need to exist who cannot take care of his employees. The problem can be solved by a system of compulsory insurance policy which every employer should be forced to take out before he could be permitted to proceed with his operations. This will take care of cases which we have known where employers have afterwards been found absolutely unable to pay anything to his deceased workmen.

Administrative machinery. We believe dependents ought to be permitted to apply directly to commissioner without giving any notice to the employer as at present to deposit the compensation. This is essential, as often enough the employer does not even deign to give a reply or to exert pressure to wriggle out of proper compensation.

IX.—A. Factories.

55-62. The eight-hour limit should be prescribed as the standard for every form of industry including seasonal industries like cotton, ginning, etc. Half an hour interval is given for meals if the worker has to put in more than six hours continuous. We would suggest that besides the time given if the work is of a hard manual character more period than that should be permitted to overcome the effects of industrial fatigue which reacts adversely on his muscle and senses.

The compulsory off days enforced under the Factory Act are four Sundays "off" in a month on non-continuous operations and two Sundays on continuous operations. We are of the view that four compulsory "offs" should be enforced against every individual worker, but the cost of two off days should be borne by the employer on the principle of increased return to him by way of increased efficiency and more attention to his work. If Christmas and New Year days are observed as total holidays in various factories and plants, we submit that an equal latitude should be given to the Hindu and Mahomedans in the selection of one prominent festival day for them as a holiday for the whole plant.

X.—A. Factories.

Children as a rule should not at all be admitted into any factories. Infants and childrens' area should be separated from the precincts of the factories and nursing mothers permitted to attend to their babies for whom crèches should be compulsorily enforced on employers. These crèches should be in charge of trained nurses, who can attend to the minor ailments of children and give instruction in personal hygiene.

As far as possible women should not be employed in factories where hard manual work has got to be done, and we are absolutely opposed to the employment of girls and adult women between the ages of 12 and 20, which age we emphasize in order to eliminate temptations presented before immature minds and which are the invariable accompaniments of factory life.

B. Mines.

All female labour in mines should be totally prohibited and their continuation is a blot on the administrations of this country.

XII.—Wages.

96-111. The minimum wages that Federation stands for and that it would like to see established by Statute for all industries should be one rupee for male and 12 annas for female labour. The present average earnings of workers in India are too miserably low to permit of even a bare living, bare housing, and bare wants. If this wage cannot be immediately enforced, we at least want a period to be named by which it should be attained.

Wages are fixed by piece-work or on daily system. If a man is fixed on piece-work as in foundries or in repeat machine shop operations, piece work is not inadvisable, but workers should not be permitted to work for more than eight hours maximum. The rate of wages when fixed by daily system should be fixed by the job rather than by individuals; what we mean is a flat rate for all workmen doing the same job, as our experience points out that to be the only method to eliminate bickerings and charges of unfairness, an alternative can be suggested in the form of a minimum to start with and a maximum to be attained by annual increments wherein the questions of efficiency or fitness of the employee can be judged by the continuation of his service only. In certain industries where production is by tonnage a system of payment by tonnage out-turn should be arranged for. Wages should not be held

over for more than a week after they are due, as the workers get into debt while the employers profit by interest. All payment should be fortnightly, though there should be no diminution of any of the privileges enjoyed at present under the existing systems. Wages should keep abreast of the cost of living, and not as at present stationary under the existing system.

Wages in factory towns and cities are always apt to be higher than those in the surrounding agricultural areas, because the cost of living is decidedly cheaper in agricultural areas than towns and cities, and consequently no inference can be drawn or rates established on a comparison of these rates. Besides, the conditions of work materially differ.

We are in favour of wages being fixed by mutual arrangement between the trade union and the employers, but under the present conditions where the trade union movement has not taken deep root nor enough loyalty cultivated the scheme does not offer any appreciable prospects at the present time, besides the law of supply and demand militates against any such arrangements for there are innumerable persons ready to fill the places vacated even on less wages.

All unclaimed wages should be expended for welfare and benefit schemes for labour.

We are in favour of one month's leave privileged with full pay for all classes of workers after a year of service. It should not be permitted to accumulate for more than three years, and leave should be granted whenever applied for and not whenever it is convenient, for a large scale employer is always in a position to arrange for his requirements, rather than a poor individual who cannot make other arrangements to suit his wants.

Industrial areas mostly everywhere are invariably infested by Kabuli and Marwari moneylenders, whose operations are detrimental to the peace and quiet of the worker. Most of these debts are due to ignorance and represent exorbitant interest or faked amounts. These could be overcome by a proper system of regulated co-operative credit societies.

XIII.—Industrial Efficiency.

112-116. Indian labour, though classified as inefficient, is the product at present of its surroundings. There is nothing inherent in our labour that should make it either inefficient or uneconomical. Its acquaintance with machinery can be regarded as only of recent times, and there has been no real opportunity of building up a class of artisans who have nothing else but their trade to hold for a living. At best at present work in factories is regarded as a means to supplement agricultural income, and for that reason real rates of efficiency have not been attained which we find in western countries. So long as men's attention and time is divided between land and factory this state of affairs will continue. There is, however, a real beginning visible of a landless class or a class practically divorced from land, and such class of artisan has made real good, and their efficiency can give a point to western workers. Further: education has not given its touch of refinement because no education worth the name exists. Besides, very often a standard set for work is false, and by inference the worker is blamed. Again, a worker seldom has given to him comforts in housing or other amenities of life that could permit him to relax to get upon his job willing and fresh. Of course physique in tropical countries, where life is generally easy, is not meant to compare with constitutions built for hardships and strains of a temperate or cold climate.

It is a known fact that a meat diet conduces to better stamina, capable of facing hard solid manual work, and that temperance both in habits and morals conduces still further to cultivate efficiency. When we mean temperance in habits, we emphasize the necessity of restriction over sale and consumption of alcohol, and in the provision for clean surroundings. It pays the employer to look after his labour outside the factory as he at present does in keeping a tab on him inside the plant, we mean thereby provision of clean houses, healthy surroundings, and so on.

Better wages, better housing, amusements, wider education, vocational or general, and sympathetic attitude towards its labour are the factors that lead to increased efficiency of the workers, and any expenditure on these items will bring in a double return to the employers.

XIV.—Trade Combination.

117-122. Trade unions in the modern sense have been only of recent origin in India; they have generally come into existence at a time when relations have been strained almost at a breaking point, if not actually broken, with the employer. They attain some sort of cohesion and efficiency during the period of struggle, after which they generally go to sleep. There is not that sustained interest nor that

development that comes to it when carried on during peaceful times. One reason assigned for this state of affairs is in the attitude of employers, who look upon every combination of workers with the most suspicious blasting eye. He deliberately imposes an acute and prolonged struggle on such combinations, which generally perishes through weariness and lack of sustenance. Very often it has been suggested that the employer is helped in his persecution of trade unions by the heavy hand of administration, and that accusation has a ground, if nothing else at least, by Government's aloofness in a struggle that can at best be described as one-sided.

In their despair these trade unions that have generally sprung up through the initiative of some enterprising workmen or workwomen, who have as a rule more native ability than cultivated talent, finding themselves unequal to the various machinations and tactics of employers have recourse to politicians in the neighbourhood, who put a totally different complexion on the struggle. More often false issues are raised and we have known cases where industrial disputes have degenerated into political tussles. Effects on industry and on the workmen of such non-industrial struggles are disastrous, they not only cripple industries but detrimentally postpone the growth of trade union or of solidarity amongst the workmen who recall the adage "once bitten twice shy."

A healthy trade union is the best guarantee for an industry's stability and prosperity, and as employers may be prone to form their own combinations, it would pay them to encourage a like movement amongst their workers and a history of workmen's struggles has strengthened this trend of thought. Workmen's combinations when well-led, well-organized and confined to labour alone have exerted a very healthy influence both on the well-being of workers and that of industry.

Trade unions generally in this country have had such short existence that the only benefit they have been able to distribute amongst its members is in the nature of strike pay, when they have had funds enough for the purpose, and that not too often either. Mutual benefit, unemployment, sickness and old age schemes have had no time to develop and if we are not wrong a state of affairs will continue in a like manner for some time still to come.

The Trade Union Act has not been so successful as anticipated and has not encouraged any growth of trade unions because of the halting nature of its provisions. Registration of a trade union in the archives of Government does not bring to it a recognition to its employers, which is the only thing that brings the two parties together. This glaring omission unless amended will continue to keep the act in an amorphous state, and though the immunity from liabilities both civil and criminal afford a certain measure of protection they do not go far enough. A determined trade union can continue a struggle and escape from all liabilities by so disorganizing the working of the employer, what registration of the trade union is meant to achieve, but it will not bring nearer the recognition by the employer which is a thing that connects. The Act should be so amended that an employer cannot refuse recognition to a registered trade union that contains 30 per cent. of his employees as members.

Where in any industry a trade union of sufficient strength and importance exists negotiations between the parties should be carried on through its medium, and all points of dispute should be settled in co-operation with it. The greater the confidence a trade union inspires amongst its members of its ability to serve them goes a great way towards establishing harmonious relations, between the employers and the employee which reacts favourably to an increased efficiency at the plant.

XV.—Industrial Disputes.

A lock-out is seldom paying to an employer though strikes have been known to have been won. The extent of duration and character of strike and lock-out have varied and are entirely dependent upon the parties and on surrounding circumstances. Loss to workers is certainly enormous, but there have been no gains without pains. Any machinery that prevents a showdown is always to be welcomed for there is not known any machinery that can compel either side to accept an award excepting a fight to a finish. A Trade Dispute Act recently promulgated as it stands can render some service though not surely when its provisions are put to use before the parties sever their connections. After a regular breach there is very little scope for the bill to prove useful.

Government's neutrality has been seriously questioned and it is open to doubt whether in the struggles between the labour and capital in this country in its present state of development can or should remain neutral. Where any large masses of men are involved the fact of these being striking workmen does not take away from them the status of being citizens and does not divest the administration of its responsibility towards them.

XVII.—Administration.

Each provincial administration should be primarily vested with powers to settle a pending trade dispute and central must not consider itself absolved from all responsibility.

Labour in large industrial centres should have a direct representation on the provincial Governments and provincial labour meaning combination of industrial centres should be represented on central legislature.

Mr. J. R. DAIN, C.I.E., I.C.S. (formerly Deputy Commissioner of Singhbhum).

Extract from covering letter No. ⁸⁷XL—1 L.C., dated the 17th February, 1930, from the Secretary to the Government of Bihar and Orissa, Revenue Department, to the Joint Secretary, the Royal Commission on Labour in India.

I am directed by the Governor in Council to forward for the information of the Royal Commission on Labour in India, a supplementary memorandum on labour unrest in Jamshedpur. The memorandum has been prepared by Mr. J. R. Dain, C.I.E., I.C.S., who has had access to all Government papers on the subject and has been in close touch with the local Government. Mr. Dain has the full approval of the local Government in submitting this memorandum, but I am to explain that it is prepared from the point of view of his own personal opinion on events with many of which he was in personal contact.

**MEMORANDUM ON LABOUR DISPUTES IN JAMSHEDPUR
FROM 1920 TO 1930.**

PRELIMINARY.

I.—Some Facts about the Town.

This memorandum is an attempt to give an account of the chief industrial disputes in Jamshedpur during the last ten years and in particular the three big strikes of 1920, 1922 and 1928, in the Tata Iron and Steel Works, and the strike of 1929 in the works of the Tinplate Company of India, as well as an account of the unions concerned. It is compiled as far as the history up till 1927 is concerned from the reports of officers of the Government, and for the last three years from the personal knowledge of the writer, who was Deputy Commissioner of Singhbhum (in which district Jamshedpur is situated) during the period. It is, therefore, open to criticism, as being a review of events from one angle only, that of the Government officer on the spot, charged with the duty of maintaining law and order, or in other words of "keeping the ring," and only concerned in a secondary degree with giving what assistance he can to the disputants in settling their differences. Statements made and opinions advanced in it are clearly open to challenge either by employers or workmen as misapprehensions due to lack of industrial experience or ignorance of the considerations which affected the attitude of the parties.

2. It is not necessary to attempt to give an account of the early history of Jamshedpur, but there are one or two facts to which attention may be drawn. The place is an isolated and self-contained area, the property of a single big company, with certain other associated companies run on a much smaller scale as its tenants. Access to it is given by one railway and one road; on the north and west it is entirely cut off from the surrounding country by two big rivers. A new industrial concern is generally started in an established town in which other industries are already working. Little more than twenty years ago Jamshedpur was a quiet corner of Singhbhum district, with one or two big villages and largely under jungle. The site was selected for the new enterprise as being near the sources of iron ore, not too far from the coal, and having a plentiful supply of water. There is also reason to suppose that it was believed at the time that it would be a centre of a large supply of cheap unskilled labour. The first stake was driven in February, 1907, and in the course of twenty years the Tata Iron and Steel Company has acquired about 25 square miles of land and established thereon one of the largest iron and steel plants in the world, and a modern town of about 100,000 inhabitants and surrounded itself with associated companies who take and utilize its products. The town is a microcosm of India, containing persons born in every province from Burma to the North-West Frontier, from Nepal, Afghanistan, China and Ceylon, as well as from half a dozen European countries, and from the United States, Canada and Australia.

The population has been housed, each after its kind, by the company, which also provides the hospitals, the municipal services and the amusements, as well as the means of livelihood. One result, however, of a large industrial town isolated in the middle of a comparatively poor country is that the cost of living has always been very high and this has been a big factor in industrial trouble.

3. Another fact to be remembered is that this town for a long time had no form of municipal government at all. The company was a benevolent autocrat, occasionally aggrieved to see that its subjects were inclined to resent the autocracy and to forget the benevolence. A special committee was appointed in 1919, under the presidency of Sir Walter Maude, to consider the problems that arose from the rapid growth of this industrial town. That committee recognized that the form of administration provided by the existing Municipal Act could not be adapted to Jamshedpur and made many far-reaching recommendations, including the formation of an authority to be called the Board of Works, to be composed partly of Government officers and partly of local representatives and to be invested by special legislation with the necessary powers. Effect was never given to this, partly for financial reasons, but soon afterwards the Iron and Steel Company and the associated companies came to a formal agreement between themselves, by which each was to subscribe a certain portion of the necessary capital and recurring expenditure, and to nominate a committee of companies which was to be the governing body of the town. The executive of this body was to be called the Board of Works (the title suggested for the different kind of governing body contemplated by the Maude Committee) and consisted of six representatives of the Iron and Steel Company, three representatives of the associated companies and two of the general public. The Iron and Steel Company was, of course, the predominant partner in this business, as it found most of the money and owned all the land, but the Board of Works had no legal powers of any kind. To remedy this, the local Government in 1924 made Jamshedpur a notified area under the Municipal Act, and appointed a Notified Area Committee, the personnel of which always remained the same as that of the Board of Works. To this Notified Area Committee were given certain powers under the Municipal Act, including the power (subject to the control of the local Government) to impose taxation. But the only taxes it has so far imposed are small taxes on motor-cars and the like; it has never attempted to impose rates, for the simple reason that the maximum rates that could be raised under the existing law would not furnish a quarter of the sum needed to keep the administration running at its present standard. There were thus two bodies, the Board of Works, a committee of the companies who found all the money and carried out the municipal services, and the Notified Area Committee, consisting of the same persons, with legal authority but no money. The agreement under which the Board of Works was constituted expired recently, and an arrangement by which each company manages its own area was substituted. This leaves the penniless, but legally empowered, Notified Area Committee as the formal governing body of the town. Jamshedpur is a unique example of a town with the most modern and efficient municipal services in India where the inhabitants pay no rates. It is hardly surprising that no objection has been raised to the arrangement despite its undemocratic character, and the relief from rates at the expense of the company constitutes an addition to wages which must not be overlooked.

4. South of Jamshedpur and outside Messrs. Tata's area is the suburb of Jugsalai. This is a congested and insanitary area, controlled also by a notified area committee, whose income is limited by the Municipal Act and, therefore, too small to do anything effective. It is inhabited partly by merchants and others, who have been attracted to Jamshedpur, but are not employed by the companies there. The inhabitants, who number about 15,000, include also many persons working in the companies, which have not yet succeeded in housing the whole of their staff. The Indian is inclined to be restless under the restrictions imposed by modern sanitary authorities, and even if he could get a house in Jamshedpur he prefers his primitive habits and the comparative sanitary licence of Jugsalai. This area has also since the strike of 1928 been the home of many persons who are temporarily unemployed, and are waiting in the hope of another job.

5. In 1923 a new civil sub-division of Dhalbhum with headquarters at Jamshedpur was created. There is a sub-divisional officer with two deputy magistrates for criminal and revenue work and a munsif for civil work. The sub-division was created mainly as a result of the recommendations of the Maude Committee and to meet the needs of the town of Jamshedpur. The administration and policing of the town is a heavy burden on the general taxpayer of the province, while the bulk of the taxation being income tax goes to the Central Government; were it not for the excise revenue from the town, it would be a dead loss financially to the local Government. The benefit it confers by providing employment is great, but more of the wages bill paid goes outside the province than remains within it.

II.—The strikes of 1920 and 1922.

The strike of 1920 was fully described in a communique by Government published immediately afterwards and may be given here *in extenso*.

Dated Patna, the 28th March, 1920.

"The following account of the strike at the Works of the Tata Iron and Steel Company, Limited, at Jamshedpur, is published for general information.

The strike commenced on the morning of the 24th February. There had been signs for some time past that some of the workmen were dissatisfied with their wages, and a deputation had waited on the General Manager and asked for a 50 per cent. increase of wages to meet the increased cost of living. Various other grievances were laid before him, of which the principal were that more liberal compensation should be given when an accident occurred in the Works, and that the dues of deceased workmen should be paid to their relatives more promptly. The General Manager explained to the deputation the impossibility of deciding offhand questions of this nature. He promised at once to make enquiries and to collect figures on which he could make recommendations to the Directors, and suggested that the members of the deputation might collect statistics on their own account. After the enquiries had been in progress about a week the General Manager learned that the men were becoming impatient and accordingly sent for the leaders who had previously waited on him and again explained the position to them. When the strike occurred Mr. Tutwiler was in Bombay where he had gone to explain matters to the Directors.

(ii) On the morning of the 24th February the foundry employees laid down their tools without warning; and their example was immediately followed by the workmen in other branches, and in less than an hour the entire body of Indian employees with the exception of the clerks, had ceased work. The men proceeded to hold a meeting at which they decided not to resume work unless an increase of pay was granted.

(iii) The Deputy Commissioner of Singhbhum, Mr. Scott, the Deputy Inspector-General of Police, Mr. Swain, and the Superintendent of Police reached Jamshedpur on the following day. The strikers at first promised Mr. Scott that they would supply sufficient labour to keep going the power house upon which the supply of light and water for the entire settlement depended. This undertaking was subsequently disregarded by the men, and the European employees of the Company were compelled for some time to work night and day to keep the power house at work and also to close down and pack the blast furnaces in order to save them from destruction. On the third day of the strike a considerable number of men gathered at the gates, apparently with the intention of resuming work, but were dissuaded by the strike leaders who were mainly up-country men. Though there had been no disorder up to that time, the situation at Jamshedpur where 30,000 men were on strike rendered it imperative that a strong force should be concentrated on the spot for the protection of life and property. A large body of armed and military police was therefore at once despatched to Jamshedpur and at the request of local Government 100 British Infantry were also sent by the military authorities.

(iv) The Deputy Commissioner on arrival at Jamshedpur at once proceeded to discuss matters with the strikers with the object of ascertaining what their grievances were so that definite negotiations could be opened with the Company. Apart from the increase of wages the men asked that a definite set of rules for the Company's service might be drawn up corresponding to those in force on railways and in Government service. They complained that when accidents occurred the men were dealt with unfairly and that in many cases accidents really due to trade risks were reported by the foremen as due to negligence of the workmen who were thus deprived of pay during their period of absence. Complaints were also made that, when men were accidentally killed in the works, their relatives and dependents were frequently kept waiting before they received their dues. On the 26th several gentlemen (including Mr. Surendra Nath Haldar, Bar-at-Law), arrived from Calcutta and interested themselves in the cause of the strikers who adopted them as their spokesmen. On the 26th these gentlemen with six of the strike leaders met the Company's officials and the Government officers. At this meeting the following agreement was arrived at subject to ratification by the strikers as a body:—(1) That the men should resume work voluntarily as they left it. (2) That no action should be taken or ill-will borne by the Company against the strikers. (3) That the Company would make no reduction from the men's pay on account of the days during which the strike lasted. (4) That the Manager would have his statistics ready by the 1st May and that he would consult the leaders of the men in each department before forwarding his report and recommendations to the Directors. (5) That the strike would be treated as if it never

existed, and that as a guarantee of restored good relations a mass meeting of the strikers should be called that evening, at which the General Manager for the Company the Deputy Commissioner for Government, and the four Calcutta gentlemen for the strikers, should address the men and set the seal on the agreement.

(v) At the workmen's meeting which was held in the afternoon the strikers who had been present in the morning and had themselves been parties to the proposed agreement, advised their comrades not to ratify it, and when Mr. Haldar and his colleagues attempted to address the meeting in order to persuade the strikers to accept the terms offered they were denied a hearing. In these circumstances the settlement proved abortive and the strike continued. The refusal of the General Manager to consider the redress of grievancies until the men resumed work had the full support of the Directors of the Company.

(vi) Up to this period of the strike the conduct of the strikers continued to be good on the whole. Picketing had been going on from the first in order to prevent men who wished to do so from returning to work, and sometimes, if persuasion proved ineffectual, resort was had to intimidation or even to actual violence. Occasionally also speeches were made at the men's meetings at which the use of force was openly advocated, but generally the men appeared to be good tempered and not unreasonable in their attitude. From the beginning of March some of the men began to return to work and the number of these steadily increased, so that by the 7th March almost all the Europeans had been relieved at the furnaces and the power house. The workmen recruited locally in Singhbhum indeed were from the first entirely ready to return, and were only restrained by the influence of the Punjabis and other up-country men. During the first week of March the local officers including the Commissioner, Mr. Heycock, who reached Jamshedpur on the 2nd, the Deputy Commissioner, Mr. Scott, and the Deputy Inspector-General of Police, Mr. Swain, were untiring in their efforts to bring about a settlement. Assistance was also received from Mr. Byomkesh Chakravarti who arrived on the 4th but was obliged to leave again on the night of the 5th. The officials had throughout done their best to persuade the strikers to refrain from violence, and had used every endeavour to secure that the points in dispute should be clearly defined and fully discussed by the representatives of the Company and of the men. They also took a leading part in explaining the various offers of the management to the men in the vernacular. The allegation that they were not impartial but took sides with the Company is totally devoid of foundation.

(vii) On the 8th March a final offer was made on behalf of the Company in accordance with the terms approved by the Directors. The resumption of work was an essential preliminary to the grant of any concessions, but if the men returned by 6 p.m. on the 9th all the strikers including their leaders would be reinstated and paid their wages up to the date on which the strike broke out. Negotiations would then be opened regarding the other demands. The Company would reconsider the question of paying the men for the period of the strike, and undertook that there would be a definite increase in pay if the financial position of the Company permitted. When these terms were placed before a meeting of the men, they were most unfavourably received and the strikers announced that they would communicate their final answer on the return of their adviser, Mr. Byomkesh Chakravarti, who did not arrive at Jamshedpur until the 11th. On the 9th Mr. Haldar complained on behalf of the men that the management were trying to starve them into submission by refusing to sell grain to them, and asked that arrangements might be made to pay off at once men who wished to leave Jamshedpur. The baseless nature of the first complaint was explained to the men at a meeting by the Deputy Commissioner the same evening. For many months the company had supplied its employees with grain below cost price, the current local rate being from 6 to 6½ seers to the rupee whereas the company had been selling throughout the year at 7 seers. It could not continue to extend this concession to men who refused to work for it, but on the other hand, if the supply in the local bazar ran short, the Company undertook to sell grain to the strikers at the current market rates. In fact, however, there were large supplies of grain in the local bazar. It was also explained to the men that those who wished to sever their connection with the Company would be paid up to the date on which the strike commenced and given railway tickets to their homes. The crowd accepted Mr. Scott's explanation with good humour and then dispersed.

(viii) The crisis of the negotiations was reached on the 12th March, when the strikers intimated their final refusal of the terms which the Directors had offered. At the same time Mr. Chakravarti presented the men's final demands. They claimed an immediate increase of 15 per cent. in all wages which before the strike did not exceed Rs. 8 per day. This increase was to be liable to enhancement or reduction in accordance with the result of the statistics which the General Manager was preparing. No men were to be discharged and sympathetic consideration of

the subjects enumerated in the following memorandum was to be promised :—
 (1) Increment—35 per cent. and 50 per cent. (2) Provision against accidents—
 (a) Temporary. (b) Permanent. (c) Death. (3) Production bonus, general and
 labouring staff. (4) Annual leave. (5) Holidays. (6) Sick leave. (7) Casual
 leave. (8) Medical treatment. (9) Nurses and midwives. (10) Cattle dispensary
 and veterinary treatment. (11) Codification of service rules and gradations. (12)
 Number of working hours. (13) Treatment of Indian subordinates. (14) Town
 management. (15) Guest house. (16) Temple and Musjid. (17) Railway facilities.
 (18) The Department of Greater Extensions to be included. (19) Strike wages.

The general manager undertook to lay these demands before the directors.

(ix) The formal presentation of the men's claims at once accentuated the gravity of the situation. If, as Government were informed was probable, the Directors declined to entertain the proposals made, and adhered to their refusal to consider concessions until work was resumed, it was likely that disorder would occur. At the request of the local officers, therefore, Government despatched reinforcements of armed and military police numbering about 100 in all including 50 mounted men. The military authorities were also asked to hold in readiness a company of Indian Infantry who were subsequently despatched but did not reach Jamshedpur until the morning of the 16th.

(x) On the afternoon of the 13th it became evident that a decided change for the worse had taken place in the attitude of the strikers. A meeting was held at which inflammatory speeches were made, and in the evening determined efforts were made to prevent those of the local aboriginal workmen who had already resumed work from entering the works for the 10 o'clock shift. Strong pickets of strikers armed with lathis were established at various points, and a large crowd also assembled outside the south gate of the works. Workmen on their way to the works were threatened and the conveyance of a few men into the works by means of a motor lorry was deeply resented by the strikers. The Deputy Commissioner informed them that the lorry would not be used if they on their part undertook not to prevent by violence willing workers from coming to work. For the moment danger was averted but it was clear that the trouble would be renewed when the 6 a.m. shift came to work on the following morning.

(xi) Throughout the night large mobs armed with lathis patrolled the town and at 4 a.m. a very large body of strikers had collected outside the main gate and drove back by force the workers who tried to enter. Three times willing workers were brought in by means of the motor lorry under the protection of a strong escort, but lorry and escort alike and also the military police guard at the gate were heavily stoned, and at the third trip the road was barricaded by the strikers in two places in order to prevent the passage of the lorry. A little earlier the mob had accused the Deputy Commissioner of neglecting to take action on a list of men willing to leave Jamshedpur which Mr. Haldar was supposed to have sent him, and refused to believe him when he asserted (as was the fact) that no such list had been received. Soon after the barricades had been erected the Commissioner came to the gate accompanied by Mr. Chakravarti who explained to the crowd that no list had ever been sent. Mr. Chakravarti endeavoured also to persuade the men to leave the gates and resume the discussion at a meeting elsewhere. The crowd, however, remained obstinate and refused to listen. Their attitude was as follows :—(1) They would not leave the Company's service (2) They would not return to work unless they received an increase of 50 per cent. in their pay. (3) They would not allow any Indian to work while the strike was on. (4) They would not vacate their position until those already working in the works were brought out.

Mr. Heycock and Mr. Scott reasoned with the crowd for about an hour, pointing out that their action was wholly illegal and explaining that, if they would not disperse force would have to be used to compel them to do so. Mr. Chakravarti and other representatives of the strikers agreed that no other course was possible and joined in the attempt to persuade the crowd to disperse, but without success. Finally the Commissioner gave the men one hour up to 11 a.m. to leave the gates, and informed them that force would have to be used if they did not disperse by that time. After further reasoning with the men Mr. Chakravarti informed the Commissioner that he could do nothing with them, but ultimately they dispersed just before 11 o'clock on an undertaking being given by the authorities that the motor lorries would not be used that day if the strikers would guarantee not to prevent by violence willing workers from returning to work. It was also agreed that a meeting should be held with the general manager in the afternoon.

(xii) The meeting was held but was infructuous. The men adhered to their new ultimatum of a 50 per cent. increase of pay, and when the general manager offered to pay them up to the day before the strike broke out so that they might be put to no difficulty while awaiting the reply of the directors in Bombay, they said they would consider it if two months' wages were offered. Throughout the afternoon a large

moving crowd was present opposite the main gate, and a strong guard was necessary to maintain the position. It was found impossible without precipitating an outbreak to move supplies for the European quarter by lorries or cars, and the strikers expressed their determination not to permit Indian labourers to enter the works or to let supplies go into them. They objected also to the servants of the European employees of the company entering the works.

(xiii) Early on the morning of the 15th an attempt was made to take out a train carrying coolies chiefly women, who desired to go to their homes from the works to Tatanagar, but it was discovered that the railway line had been blocked, and the train was forced to return. Between half past eight and a quarter to nine in the morning, news was received that a party of strikers was attempting to wreck the railway line, and the Deputy Inspector-General of Police despatched two troops of mounted police under Inspector Pearson with directions to round up the men who were destroying the line and to arrest as many as possible. The mounted police were directed not to shoot, but if resistance was offered to use their swords. At the same time an engine and railway carriage containing eight Gurkha military police with two British soldiers as guards on the engine was sent out along the line to the spot in charge of the Deputy Superintendent, Mr. Ashby, who was told that as many as possible of the offenders were to be arrested, but there should be no firing unless absolutely necessary in self-defence. A second party of mounted police was sent out shortly after the first with similar instructions, and was accompanied by Mr. Sawday, an employee of the company and an honorary magistrate, who acted as guide. This party and the party in the train reached the scene of the obstruction before Inspector Pearson's men had appeared. On arrival they found the line blocked with signal posts, pig iron and boulders, and a large number of men, chiefly Punjabis, were completing the work of obstruction. Forty or fifty were arrested by the police, and the train was then sent back to the works to bring reinforcements, Mr. Ashby and his party remaining with the mounted men. A large crowd, numbering about a thousand, many of whom were armed with *lathis*, rapidly collected on all sides, and although detachments of sowars were sent out in different directions to keep the crowd back, they soon came to close quarters with the police and surrounded them. The attack was of the most resolute character, and it soon became impossible to retain the prisoners, who escaped and joined the mob. The police were subjected to a severe bombardment with stones, which was continued when they commenced their retreat to the Running Room, about half-a-mile away. Many of the police were struck with stones, and Mr. Ashby was somewhat severely injured by a blow from a stone on the groin. The mob were warned more than once by Mr. Ashby that if they persisted he would be compelled to order fire, but these warnings were disregarded, and at last, as the police were surrounded and hopelessly outnumbered, Mr. Sawday being the only magistrate present, gave the order to fire. Mr. Sawday also gave the same order independently to his own party. Even then, however, the mob continued to press the police hard until they were close to the Running Room.

(xiv) Mr. Scott, the Deputy Commissioner, received the first information of the collision from two of the strike leaders, Gopi and Bhuta, who came to him at the director's bungalow at about 9.30 a.m. He at once proceeded on horseback at full speed to the Running Room but heard no shots until he had come close to it. He met the retreating party still pursued by the mob close to the Running Room and ordered the firing to cease. He sent the police back to the Running Room and went on alone to stop the further advance of the mob. At this point there was grave danger that the mob would advance and get into the works. The strikers were extremely violent and some were heard to shout that they would kill the *sahibs* even if it cost them their lives. Aided by the two strike leaders Gopi and Bhuta, who had accompanied him to the spot, Mr. Scott succeeded in bringing the mob to a standstill. Keeping them in front of him and refusing to allow any men to get behind his horse, Mr. Scott advanced as far as the weighbridge. At this point Inspector Pearson's party, which had not taken part in the fighting, appeared and was sent back by Mr. Scott to join the others at the Running Room. The crowd was now cooler, and after listening to what they had to say and persuading them to take the wounded to the hospital, Mr. Scott got them to leave the railway line and disperse. In all about 100 shots were fired. Five strikers were killed, 10 wounded severely, 3 fairly severely and 10 slightly.

(xv) This collision marked the end of the attempts at active intimidation in the vicinity of the works. On the following day men began to return to work in considerable numbers. The *Bihari mistris* and the Chinese skilled workmen were anxious to resume work, while the aboriginals who supply the bulk of the unskilled labour were frankly delighted to be allowed to work. On the other hand, evidence has been obtained that Punjabi and other up-country workmen had organized something approaching a reign of terror amongst the villages threatening to beat those

who returned to work, to burn their houses and rape their women. Confidence in the ability of the authorities to protect those willing to work was now restored, and the number of those who returned was greater than the management could deal with. On the 18th a committee of directors, including the Chairman, Sir Dorabji Tata, arrived at Jamshedpur, and after consultation with the General Manager, the following notice was issued:—(1) The Committee of Directors of the Tata Iron and Steel Company, Limited, headed by their Chairman, Sir Dorabji Tata, arrived at Jamshedpur this morning. (2) They have decided to give time to the men till 6 a.m. on Saturday, the 20th instant, to return to work. (3) If the men resume in sufficient numbers to enable work to be commenced the Committee will at 10 a.m. on Saturday, the 20th instant, announce the decision at which they have arrived as regards the concessions demanded by the men. (4) The Directors will leave Jamshedpur for Bombay on Saturday, the 20th instant, at 2 p.m.

(xvi) On the morning of the 20th practically all the men resumed spontaneously, and in accordance with the promise made the decision of the directors was announced. All men drawing Rs. 50 and less would receive a permanent increase of 25 per cent. in lieu of 10 per cent. bonus, while men drawing over Rs. 50 would receive a permanent increase of 20 per cent. in lieu of the bonus. Other demands including the question of bonus, scale of salaries, and rules regarding accidents and leave would be considered and a decision announced on or before the 31st May. This decision has apparently been accepted as satisfactory, and all is now reported quiet.

(xvii) The attention of Government has been drawn to an article which appeared in the *Amrita Bazar Patrika* on the 20th March last which, which purports to give an account of the incidents which took place on the 15th March from information supplied by a local correspondent. It is alleged in this article that a European servant of the company fired with his pistol on the strikers four times, at a moment when the strikers had quieted down, and there was no danger to any one of personal violence. This is a complete distortion of the facts. No firing at all took place until the party of police (with whom Mr. Sawday was) were compelled to fire in order to protect their own lives. Mr. Sawday himself did not fire until he was attacked by a man with an iron bar, and he then fired in the ground about six feet in front of his assailant. Even this did not turn the man, who was eventually driven off by a sowar, who rode at him with drawn sword. Subsequently during the general action Mr. Sawday had to fire four times more, but never except when the mob were pressing home their attack. No other European servant of the company fired at all. Again, it is alleged in the article that the strikers demanded back certain Indian workers who were being carried in a wagon which a European employee of the company was escorting accompanied by a number of cavalry soldiers. It will be seen from the above narrative that the firing had no connection whatever with the objection which the strikers raised to the conveyance of willing workers into the works in a motor lorry. The two events indeed occurred on different days. So far were the strikers from being in a peaceful mood when they tried to stop the lorry, that they stoned the lorry, its escort, and the police guard at the gate with great violence. No cavalry soldiers were at any time during the strike at Jamshedpur; the mounted men referred to were members of the mounted company of the Bihar and Orissa military police. It is also alleged that the attitude of the strikers on the 14th was one of determined persistency that their 'bhailok' should not be taken forcibly or under threat to work inside the factory. This is a complete misrepresentation. No attempt whatever was made at any time to compel anyone to work who did not wish to do so. On the contrary, the violence was on the side of the strikers, who forcibly prevented the entrance of willing workers into the works.

Another statement in the article is that the European gentlemen could not wait even 10 minutes before firing to send for the Commissioner, who was within easy reach. It will be evident from the account given in the foregoing paragraphs that firing was postponed until the last possible moment, and that there was no time to send for the Commissioner or for any other official. In fact, moreover, the Commissioner could not have been brought to the scene for at least 20 minutes. It is stated in the article that Mr. McNabb, another employee of the company, appeared at the head of a body of soldiers and that, although there was no competent authority to order the soldiers to fire, they nevertheless did so. The fact is that Mr. McNabb did not accompany any party of the police on the 15th, and was nowhere near the scene of the occurrence when the firing took place. No party of soldiers fired at all.

(xviii) In view of these stories and of others which have gained currency it is desirable that the facts should be clearly understood. It is not the case that any attempt was made by or on behalf of the company to compel unwilling persons to work or to bring men by force within the works. The regular troops and the armed and military police who were sent to Jamshedpur for the protection of life and property were at no time used for any other purpose. When the police were at last compelled to fire on the strikers they did so only in self-defence when attacked by

a large and angry mob. With the exception of two British soldiers who formed part of Mr. Ashby's party in the train no regular troops took part in the firing. From the evening of the 13th until the morning of the 15th the behaviour of the strikers was most threatening, and the fact that a collision was averted on the 14th was due solely to the mingled tact and firmness of the local authorities. Great credit is due in particular to the Commissioner, Mr. Heycock, for his handling of the situation on the 14th and to Mr. Scott, the Deputy Commissioner, for the resolute manner in which he faced and quieted the mob on the 15th, when the police party were driven in. The fact that he was successful in his attempt shows clearly that during the negotiations of the previous three weeks he had gained the confidence and respect of the strikers."

2. There is little to add to the above statement. It is clear that the immediate cause of the strike was economic. The price of living had been increasing rapidly since the war all over India, and in the town of Jamshedpur there are conditions which make cost of living higher there than elsewhere at any time. It is too large a concentration of people to live in that comparatively poor country even if an industrial population could produce their own food. All necessities have to be imported by rail or from some distance. This must have been aggravated at the time by the influx of workmen employed on the construction of the "greater extensions" which nearly doubled the size of the works. Added to that it was a time of scarcity in the province; for two years the outturn of staple crops had been poor, and there had been practically a famine in cotton cloth. It is true that Messrs. Tatas even then were paying considerably higher wages than were paid elsewhere for similar work; for months the company had been selling both grain and cloth to their own employees below cost price, and the 10 per cent. bonus mentioned in the papers as given since 1917 appears to have been compensation for high prices, and was not a production bonus. There is no material on which to make any estimate of how the wages paid compared with a living wage; the ruling fact no doubt was that the purchasing power of a man's earnings was less than it had been before. It seems to have been established at least by negative evidence that no outside influence of any kind had been at work in bringing about the strike. It is gratifying that immediately on the termination of the strike the Directors of the Iron and Steel Company passed a resolution expressing their appreciation of the services of the officers of Government not only in the matter of preserving law and order but also in the assistance rendered by them in bringing about a termination of the strike.

3. The settlement reached on the 20th March had left much for future consideration, and the records of the time show that the final settlement was not reached without friction and unrest. On the 20th May, the directors made a further announcement regarding (i) service rules regulating employment, discharge, disablement, sickness and leave, and (ii) provident fund rules. It was not well received. The announcement made no allusion to the points to which the men attached most importance, viz., strike pay and the extension of the bonus on production to all ranks. The service rules gave satisfaction, but the provident fund rules were unacceptable largely because they were misunderstood. The men held that the increase of wages granted at the end of the strike were a temporary arrangement pending examination of figures and they expected a further increase. Finally, the company made announcement to the following effect:—

(i) The following increase in wages were announced:—

Monthly pay or equivalent daily wage.	Increase.
Rs. 15 to 40	20 per cent.
Rs. 40 to 75	15 per cent.
Rs. 75 to 150	10 per cent.

The increases were to be calculated on the actual rates of wages drawn on the 29th February, 1920, excluding the 10 per cent. bonus granted in 1917, and were to be in addition to the permanent increases granted in March last.

The net result is shown in the following table:—

Monthly pay or equivalent daily wage.	Percentage granted in March.	Percentage granted in June.	Total percentage of increase.
Rs. 15 to 40	25	20	45
Rs. 40 to 50	25	15	40
Rs. 50 to 75	20	15	35
Rs. 75 to 150	20	10	30

(ii) All employees drawing less than 8 annas a day or Rs. 15 a month were to receive two days' additional pay after every four weeks if not absent for more than one day, and one day's additional pay after every four weeks if not absent for more than two days. (iii) The provident fund rules were altered so as to require a contribution of half a month's pay only from all employees as a condition of receiving the company's contribution. (iv) The demand for strike pay was refused. (v) Bonus on production was to be paid to all employees, irrespective of nationality, holding or rising to a post in which the bonus was then being drawn. (vi) One-third of lapsed deposits in the provident fund were to be held as a fund from which gratuities would be paid on retirement to employees who have served the company continuously for 12 years. (vii) The company refused to introduce fixed scales of pay in the works. (viii) Holidays for two religious festivals in each year were to be granted to all employees on full pay. (ix) Employees paid by the day were to be allowed two weeks' leave annually on full pay instead of six months on half pay after seven years. (x) The directors refused to recognize the Labour Association at that time as it had only been in existence for two months, and they were not satisfied that it represented a large proportion of the men. They promised to reconsider the question if further experience showed that the Association was a genuine body which desired to work in co-operation with the management.

4. The reference to the Labour Association here is the first we hear of that body which has played a large part in Jamshedpur labour politics subsequently. A note, dated the 16th March, 1920, by a police officer states "A Jamshedpur Labour Association has been started with Mr. S. N. Haldar as president, Jogesh Ghosh as secretary and Viswanath Janardan Sathey as treasurer. The executive committee appears to consist of those who took a leading part in the strike." Mention is made at the same time of a rival society, apparently started by the company called the Tata's Workers Welfare Union, of which little more is heard. At the time the membership of the Labour Association appears to have been small and its influence among the men limited and the company actually conducted negotiations with an independent committee of representatives of the workmen. Government officers noted at the time their view that the recognition of the Association is a matter which would not be allowed to drop, and mentioned two further causes as likely to prevent the complete restoration of peace. One was the fact that shopkeepers in the town were clearly profiteering and had managed to force up the price of food grains directly the first increment was granted in March. Another was that the system of promotion intended to secure promotion by merit alone, did in effect work arbitrarily and give rise to discontent and a feeling of insecurity. However for the moment the trouble was past.

5. The period between the close of the first big strike early in 1920, and the second strike in September, 1922, was one of great political activity. The reformed Government had come into being and non-cooperation was at its height. Though none of the strikes at Jamshedpur has been either instigated by politicians or due directly to causes other than a labour dispute, yet this place like all others must have been affected by the prevailing unrest. The Labour Association was growing in strength and influence though still unorganized, and the leaders in its activities were the same persons as those who took the lead in Congress politics. The president was still Mr. Haldar, the Calcutta barrister, and two organizing secretaries were sent to it by him in succession, one at least of whom had been in jail in consequence of his revolutionary activities. The early connection of the Labour Association with the advanced political party is important, as it is this connection which largely explains its policy, its failures and its successes. Meanwhile, great changes had been taking place in the position of the company. The world prices of steel were falling and wages were being reduced in Europe, while the company during the period of high prices had embarked upon extensions which nearly doubled the capital on which they had to pay interest.

6. The Labour Association was again active in the middle of 1921, when it presented to the management three demands: (i) Bonus of one month's pay from the profits of the previous year, (ii) an all-round increase of 33 per cent., and (iii) a minimum of 8 annas a day for weekly paid labour. The management declared themselves unable to meet these demands, which caused disappointment, and also stigmatized them as "unreasonable," which caused considerable resentment. The leaders declared that the position must be accepted as they were not strong enough to strike. The failure of the Association in these negotiations discredited it to some extent. The executive had presented to the management demands considerably more moderate than those which the mass meeting had by resolution authorized them to present, and this brought much criticism and suspicion upon them. The other point to notice about these demands is that they include a claim to a share in the profits. The management of the company have from time to time called attention

to the fact that strikes or threats of strikes always coincide with a time when the company is making or believed to be making larger profits than usual; the strike is not for a subsistence wage, or even a fair wage, or to maintain a particular standard of life, but the strike leaders are opportunists taking every chance to wrest from the shareholders a larger share of the profits of industry. It is true that these demands include one for minimum wage for the cooly class; and this demand has appeared again among the numerous demands that have been made in the course of the strikes. But a feature of these strikes in Jamshedpur is that they have been strikes of superior and skilled or semi-skilled men; the cooly class have never been willing participants, though kept out of the works by timidity. They have usually rejoined as soon as police protection is guaranteed, and their needs have generally not formed part of the final settlement.

7. It was nearly a year before the Labour Association became active again, and its activities on this occasion culminated in the second big strike. There are those who attribute this activity and its consequences merely to a desire of the Association to recover their lost prestige, but there is no evidence to prove this. Indeed, it seems clear that the leaders still considered that the time was not ripe for a strike. Reports of meetings are available which show that the president was strongly against a strike until more funds had been collected and the body had been consolidated. The impression gained by Government officers was that the Labour Association would not call or instigate a strike, but that if one occurred they would take charge of it and manage it. Appreciations of the situation at the middle of 1922 refer to the great unrest prevailing and note in particular two points (i) the large numbers attending the mass meetings called by the Labour Association, (ii) the fact that the grievances discussed were to a very great extent particular grievances of individuals and that there seemed no general grievance affecting the whole body of workmen. The latter comment seems correct. There was not much talk of general grievances. Mention is made of housing, particularly of the terms on which land was let for building houses, of the hours of work for the general shift, of facilities for grazing cattle on open spaces, of free medical attendance at workmen's homes, and the like. But as has been discovered several times the expressed grievances are not always a safe index to the real cause of the troubles, and a statement and a counter manifesto were issued by the company and the workers respectively, which probably focus more clearly the true issue. The company's statement was to the effect that world prices of steel were falling, profits were being reduced and any increase in wages was impossible; that the men's leaders were misleading them; that if a strike occurred the company would be forced to close down and would not reopen for many months; that the men must assist the company if the present rate of wages was to be maintained, and that if the men struck, strikers would only be taken back (if at all) on a lower rate of wages. The counter manifesto appeared soon after. It was signed "The workers" as a reply to the statement that the discussions in the mass meetings were not representative of the views of the men as a whole. "It is not the speakers at the meetings who clamour for an increase of wages and other concessions, but it is we who want a reasonable share of the produce of our labour and right and justice done to us in other respects." It then proceeds to examine balance sheets and to urge that shareholders and the reserve fund had had more than a fair share of the profits, that allegations that wages had been reduced in Europe was fallacious, since the reduced wages in Europe were still more than double pre-war level, while in India there had been no such inflation of wages to justify a reduction or rather the refusal of an increase. It dealt with other parts of the company's statement and ended on a distinctly threatening note. It seems clear that the chief cause of unrest was the belief in the ability of the company to pay much higher wages, and that it was making big profits in which the men did not get their fair share. A strike was expected immediately after the 25th August, 1922, but did not occur at once. The Association, however, sent the following list of demands to the Directors and the General Manager:—(i) That Ganga Prashad and A. C. Mazumdar, dismissed employees, should be reinstated. (ii) That the company should recognize the Labour Association, permit its members to enquire into grievances and give the Association a quarter in Bistapur. (iii) That the general shift should be for 8 hours only, from 8 a.m. to 4.30 p.m., including half an hour for lunch (instead of 6 a.m. to 4 p.m.), and that clerks should work only from 10 a.m. to 4.30 p.m. (iv) That there should be no compulsory overtime and that for overtime at night 4 days' pay should be drawn for 3 days' work. (v) That victims of accidents should draw full pay while absent from duty (i.e., irrespective of any fault in the matter). (vi) That the service rules should be amended to enable employees to take leave at the time of their choice and not at the discretion of the company, and that gratuity should be paid after 10 years' service. (vii) That workmen drawing less than Rs. 300 a month should receive free medical attendance at their homes for their wives and families. (viii) That out of the profits for 1921-22 the company should grant a bonus of one month's pay to all its employees. (ix) That female

labourers should draw full pay for six weeks before and after delivery. (x) That Mr. Campion should make a written apology for having interfered with Sohan Bux at his prayers. (N.B.—This matter was dropped owing to Mr. Campion's sudden death in a day or two later.)

It is noted that the demand to which the men attached most importance was that for a bonus of a month's wages from the profits. No copy of this letter is in the possession of Government and it is not known whether it contained any notice or threat of a strike. Presumably it did not as the strike clearly came as a surprise to the management. The papers of the time contain a note of a conversation between a police officer and the representative of labour in the Legislative Council. The latter, who was in a position to speak with knowledge, stated that counsels were much divided about the policy of striking, that many of the strikers had no real grievances, but the fact that the company had made 88 lakhs of profit in the previous year and after refusing a dividend to their shareholders had been obliged to yield and declare 4 per cent. had led the men to believe that the company could pay increased wages, if the men took a firm stand as the shareholders had done. The immediate occasion of the strike was the failure of the company to answer a letter from the Labour Association but the real cause was the high price of food and necessities and the failure of the company to control prices and to check profiteering.

8. On the 19th September, the acting general manager had authorised an announcement that the men's demands would be considered on the return of the permanent General Manager, Mr. Tutwiler, in the first week of October. This was announced at the mass meeting in the evening at 6.30 p.m. and it was resolved to strike. The 10 p.m. shift did not go to work and the works were deserted save for the whole European staff of the company who kept going such work as was needed to maintain the essential public utility services and to prevent irreparable damage to the plant. The strike was complete and included not only the ordinary Indian workmen, but also many Anglo-Indians and the Bengali clerical staff. By morning elaborate arrangements had been made by the men to picket all the approaches to the works, but everything was orderly and there was no violence. The management were determined to adhere to the terms of their public statement, as is shown by the notice issued two or three days later, as follows :—(a) Those men who return to work on Monday, 25th September, according to their proper shifts and hours of duty will be retained on their present rates of pay. (b) Those who do not return by that time cannot be taken back on their present rates of pay and their pay will be reduced 10 per cent. (c) The company reserves the right to refuse to reinstate those employees whose services it does not wish to retain. It is a notice that leaves little room for compromise or negotiation.

9. The Deputy Commissioner, Mr. Lewis, was on the spot when the strike began and he was soon joined by senior police officers. Immediate steps were taken to concentrate a large force of police and military in the town. The first need was to ensure the maintenance of the essential services, the supply of water and light. The necessary work was being done by the European staff who were engaged day and night on the boilers in the works and in consequence great anxiety was felt for the safety of their women and children who were alone in the town. Reports show that feelings were extremely bitter, a deadlock had been reached at a very early stage, both sides showed an inclination to "force the pace," and the officers of the Government anticipated that the situation would deteriorate very rapidly and end in rioting and bloodshed. Particular anxiety was felt for the safety of the works, which are a national asset and more than the mere property of a private company. At the same time as these preparations were made, the Deputy Commissioner met both parties and assured them of his strict impartiality as regards the issues at stake and the fact that the forces at his disposal were intended only to protect life and property and to secure to everyone the free exercise of his private rights whether to work or to abstain from working. The need for this was fully proved by a number of isolated cases of assault and intimidation, which however were much reduced when the system of patrols was established.

10. The Honourable Mr. (now Sir Hugh) McPherson, Member of the Executive Council of the province went to Jamshedpur a few days after the strike had begun, to enquire into the situation. He succeeded in bringing about a meeting between the management and the men's representatives in his presence. Mr. Padshah, the acting general manager of the company, had by this time received the instructions of the directors on the demands of the men. The directors protested strongly against the declaration of the strike without any opportunity for the management to consider the demands of the men (the letter had reached the general manager on the 18th September and the strike had been called on the 19th) and then stated with regard to the points at issue that the company could make no concession which meant increased cost of production, or any concession which involved surrendering to the Labour Association the proper functions of the management in matters of discipline and

administration, but that the other demands would be sympathetically considered. It must be noted that the directors on this occasion had given their general manager full powers to come to a settlement, thus avoiding one of the chief difficulties of the previous strike; but at the same time the matters left for negotiation were very limited. There were no further discussions at the moment. It seems that at this stage both Government officers and Mr. Halder (who was still in Calcutta) believed that the demand for a bonus of one month's pay was not vital and that the grant of some other concessions might save the face of the men and bring about a settlement. Government officers thought that in their dealings with these men the company were inclined to presume too far on the fact that they were absolute owners of a town of sixty thousand inhabitants, and to lose the credit for the great and substantial benefits which they had conferred on their labour, by an overbearing manner in comparatively small matters. With regard to the Labour Association it appears that the recognition of that body was under consideration, but the presence of outsiders in the executive was a stumbling block. It may be noted that at this meeting the company adhered to its intention of dispensing at their discretion with the services of those who did not rejoin by the 25th September, but there is no record that anything was said about the 10 per cent. reduction.

11. The effective system of police patrols was restoring confidence in the town and under the protection afforded a large number of coolies and some of the clerks rejoined, but on the date fixed by the company (the 25th September) the number of skilled men who had returned was very small. The reports of the time note certain features which we also noted in 1928. The cooly class were never willing strikers and rejoined as soon as they could do so without danger. As men returned to work the bitterness of feeling and the determination of both sides increased. The mass meetings had wavered about calling a strike, but now that it had started they were unanimous to continue it. The Deputy Commissioner was obliged to warn both sides against the vindictive prosecution of petty cases in the courts. The strike was now resolving itself into a struggle for power between the company and the Labour Association which was by this time affiliated to the Trade Union Congress. The Government officers were of opinion that Mr. Halder (who was now in Jamshedpur) attached little importance to the actual demands of the men, but much importance to saving the Labour Association and extending its power. He would call off the strike for two concessions (i) no victimisation and (ii) recognition of the Labour Association. The company had no wish to crush out any voluntary union of their men, but to the Deputy Commissioner it appeared that what the company actually wanted was a Labour Association that would practically surrender the right to strike and would be controlled by the management. The company would be prepared to recognize a reconstituted association. Further the management were determined not to re-employ a large number of the men who had been responsible for fomenting the strike. There was at this stage great risk of the workmen themselves becoming mere pawns in the game while the company and those who represented or claimed to represent labour struggled over the larger issues. The deadlock was complete. The possibility of some form of mediation at this time was anxiously examined both by the Government and by the officers on the spot, but circumstances at the moment were unfavourable.

12. On the 2nd October, Mr. Tutwiler, the permanent general manager, returned to Jamshedpur. He immediately announced his intention of carrying out the policy of his predecessor. Mr. Tutwiler's personal influence and the respect and affection in which he was held by all employees was great, and the first result of his return seems to have been a tendency of the strikers to break up into communities. The Sikhs, always a most influential body, took a line of their own and sent a representative deputation to Mr. Tutwiler. To the deputation, however, Mr. Tutwiler only reiterated his determination to pursue the previous policy and in particular that certain individuals would not be re-employed. Mr. Halder was obliged to address a sectional appeal to the Bengali clerical staff not to go back to work. For the moment it was successful. But by this time men were rejoining in large numbers there were upwards of 10,000 or about a quarter of the total labour force working. This as we know by experience is a most dangerous phase, and one in which there is every chance of collisions between bodies of workers and strikers or between the latter and the police. The speeches at the meetings became more menacing in tone. Mr. Halder left Jamshedpur on the 3rd October. Before leaving he wrote to the Deputy Commissioner saying that his services were still at the disposal of the men if he would be of any use, that while the strike was inopportune the demands were just and that he hoped nothing would be done to take away the men's self-respect and compel their surrender. He suggested that if no settlement was possible, the men's dues should be settled through the Deputy Commissioner so that they might leave Jamshedpur, and that arrangements should be made accordingly by the Deputy Commissioner. This last proposal was also given prominence in the meetings, and had been raised by Mr. Halder in the strike of 1920. It was extremely doubtful

whether any of the men wanted to leave, and the proposal probably had two objects. First those who knew they would not be re-employed wanted to take as many as possible of their fellows away with them. Secondly the leaders wanted to manufacture a grievance against the Government and throw on the Government the responsibility for repatriating a starving population on lines similar to the agitation at the time of the exodus of tea garden coolies from Assam. However, the general manager declared that any man who applied would have his dues settled up at once, and that he had sufficient clerical staff to deal with five hundred applications a day. There was thus no need for the Government aid in the matter and in fact no applications were made.

13. During the ensuing days of strike weariness became everywhere apparent, and men rejoined in increasing numbers, but there was a corresponding increase in the advocacy of violence which gave rise to much anxiety. This was only natural as the more determined element began to recognise that if they are not to be defeated by a process of attrition, active measures are needed. At the same time it is on record that the men's leaders themselves did everything possible to keep the peace. There seems no doubt that by this time the great majority of the strikers wished that the strike was over and that they could return to work, but at the same time were determined not to go back until some settlement was given to them which would enable them to do so without loss of self-respect. In particular, the order that all those who rejoined would draw wages reduced by 10 per cent. stood in the way. It is probable that the company had no serious intention of enforcing this order, but, at the same time, would not withdraw it. The main body of strikers waited for some advance from the side of the company. By the middle of the month, about 14,000 men, including about 3,000 skilled men, had rejoined and the company had now enough labour to operate production departments on a scale sufficient to enable it to maintain its position indefinitely. The company's position as against the strikers appeared impregnable and the company were apparently proposing to use the situation to re-organize their labour at their own time and in their own manner. This they could only do under the exceptional protection afforded by the large police and military forces in the place, and the Deputy Commissioner realised that, while it was his bounden duty to preserve the peace and prevent violent measures at all costs, by so doing he had created a situation which the company could prolong indefinitely to their own advantage. He represented this to the Government and as a result Mr. Lyall, the Commissioner of the division, came down to discuss with the officers on the spot whether any measures were possible to release the deadlock.

14. Meanwhile the company had taken a step which but for the prompt and firm action of the Deputy Commissioner would probably have precipitated a crisis. On the 16th October, the general manager wrote to the Deputy Commissioner that the company, as proprietors of the land, proposed to issue a notice forbidding the holding of public meetings on all land except a portion of the south of the town, but were withholding the notice until the 18th instant in order to give the Government officers an opportunity to make such dispositions as they deemed necessary to deal with any breach of the peace that might arise in consequence. Mr Lewis went at once to the general manager and told him that he could not receive an ultimatum of this kind, that he was prepared to draw a regular proceeding and to go into the legal aspects of the question in the presence of both parties, but that in the meantime if the company adhered to the course of action proposed, he would use his legal powers to restrain the general manager from giving effect to his intention. The proposal was dropped for the moment, and Mr. Lewis heard both parties the following day and the strikers asked for an adjournment till the 25th to obtain legal advice, but before that date the strike had ended. The same question arose in the strike of 1920, and was raised again a year or two later. The company based their claim upon their proprietary rights; it is obvious that where a private company is the sole proprietor of a large town and much of the surrounding country, the strict enforcement of the rights of private property means a complete denial of the right of public meeting.

15. On the 20th October, a sudden change came over the scene. Hitherto there had been intimidation but practically no picketing. That morning there was picketing by thousands of men all over the town and surrounding villages and hundreds of workers, particularly of the timid cooly class were turned back. They could have gone to work under the protection afforded by the police patrols but did not dare to do so. The Deputy Commissioner was satisfied that, as the men who wanted to work and the men who wanted to prevent others working were about equally balanced, such a course of conduct must inevitably result in a serious collision, or in other words, that in the existing conditions *peaceful* picketing was not possible. He therefore forbade picketing by an order under section 144, C.P.C., which, however, remained in force for a day or two only, and was withdrawn when it appeared that the need for it no longer existed.

16. On the 20th October, Mr. Lyall, the Commissioner and Dewan Chaman Lall, Secretary of the All-India Trade Union Congress, arrived in Jamshedpur. On that day the Commissioner met Mr. Tutwiler and ascertained from him that the management were not prepared to yield on any point; in particular that he was not willing to withdraw the condition that those returning would have their pay reduced by 10 per cent. though as soon as they returned he intended to recommend to the directors that this condition should be cancelled and he had let everybody know this. He declined to make any written announcement or to meet Dewan Chaman Lall. On the 21st Dewan Chaman Lall met the Commissioner and the Deputy Commissioner. There was a discussion on the ethics and policy of picketing, and then upon a settlement of the strike. Dewan Chaman Lall stated that he was in a position to bring back the men if the company would forego the 10 per cent. reduction though he pressed also for "no victimization" and a conciliation board. He wanted to meet the general manager. Mr. Lyall thereupon went back to Mr. Tutwiler, and asked whether the 10 per cent. order, which the company admittedly never intended to enforce and was apparently the only obstacle, could not be withdrawn. The general manager declared his inability to do this or to meet Dewan Chaman Lall. On the latter point, however, he relented later in the day on the intervention of Mr. Baijnath, M.L.C., to the extent of meeting Dewan Chaman Lall as man to man at his bungalow and discussing matters with him, but making it clear that he could not bind the company or go beyond the conditions already made public. These conditions appear to have been (i) immediate return to work, (ii) recommendation to directors after return that the 10 per cent. reduction should not be enforced, (iii) right of the company to refuse to re-employ those who had been especially disloyal and (iv) readiness at any time to appoint a joint committee of 20 chosen half by himself and half by the workers to report on grievances to the general manager whose decision should be final. We have no record of what passed between Dewan Chaman Lall and Mr. Tutwiler at their meeting. On the evening of the 22nd October, Dewan Chaman Lall addressed the workers and told them that a settlement had been reached on the following terms (which are taken from the verbatim report of the speech in Hindi). (i) Everybody was to return to work at 6 a.m. the following morning. Those who had gone to their homes were to resume work at once on their return. (ii) A committee of 10 from each side would be appointed to arrange a settlement of their demands. (iii) Everyone would go back on the wages drawn before the strike. (iv) The reorganization of the union shall be undertaken by the Trades Union Congress.

The following points must be noticed about this settlement:—(a) The men were told that they would go back on their former pay, no reference being made to the need for the approval of the directors. (b) Nothing whatever is said about the right of the company to refuse to re-employ particular men. (c) The natural interpretation of the statement is that the function of the committee would be to make a final decision and not merely to advise.

17. The uncertainty contained the seeds of future trouble as subsequent events showed. More important than details is the fact that there is nothing to show the authority on which Dewan Chaman Lall made his statement to the men. The general manager certainly gave the Commissioner to understand that he had not gone beyond the conditions previously made known. The company made no statement of any kind either then or later, and the Government officers were inclined to think that the company regarded the men as having returned to work unconditionally and the management as entirely uncommitted. On the other hand the company did not repudiate the statement. Moreover one or two things are clear. The termination of the strike was the direct outcome of the meeting between Dewan Chaman Lall and Mr. Tutwiler and therefore the company, though refusing to negotiate with the Labour Association, had negotiated with the larger labour organization that stood behind it. Secondly, the company did allow everyone to return on the morning of the 23rd October, and therefore the men can fairly claim to have established the principle of "no victimization." But the 1922 strike ended, as the 1920 strike had done, leaving the main issues in the air to be settled by future discussion.

III.—From the Strike of 1922 to the Strike of 1928.

The information on record concerning this period is scrappy. The first point that emerges is the ambiguity of the understanding on which the men had come back to work. There was much unrest among the Indian workmen, and also discontent among the European and American supervising staff, who considered that they had been "let down" by the management in coming to any form of compromise and particularly in taking back the ringleaders. There were numerous discharges almost at once, including that of Mr. G. Sethi, the secretary of the Labour Association.

No doubt each of these discharges could be justified on its own merits, and no doubt on the one hand there was insubordination and indiscipline as a result of the general unrest, and on the other hand, departmental superintendents were probably trying in their own departments to restore the discipline which they considered had been lost by the so-called settlement. But the men clearly regarded these discharges as victimization deferred. Further, though nothing more is heard of the 10 per cent. reduction, some of the men on their return to work found themselves in less lucrative jobs than those they left. The company's attitude in this was that the men had been allowed to return to work on their old rates of pay, but that there was no guarantee that these rates would remain in force indefinitely, and the dumping of foreign steel in the country at the time was making it impossible to continue the rates that up till then had been paid. The most important difference of opinion, however, was over the conciliation committee, its constitution and its functions. The management said that the understanding was that the men should submit 100 names of employees of the company, both of strikers and non-strikers, and from these the general manager would choose ten as representatives of the men. The men's leaders wanted to choose ten persons, including not only outsiders, but also the secretary of the Labour Association, who though dismissed from the company's service still retained that position and represented the Association at the Trade Union Congress. It appears that the disputes over the conciliation committee lasted so long that it never actually came into being or got down to business at all. Not only was there dispute as to the nature of the understanding on which the men came back to work, but there was mutual accusation that both parties were failing to keep to the terms of this ambiguous arrangement. The numbers present at the meetings of the Labour Association were, however, small, and it is doubtful whether the unrest was wide or deepseated.

2. The Indian Tariff Board was set up in July, 1923, and dealt first with protection to the steel industry. It produced its first report that year, recommending a protective tariff, and the portion dealing with labour is paragraphs 54-56 of Chapter V. It is here pointed out that the wages in Jamshedpur during the previous five or six years do not seem to be higher than those paid in other industries, or disproportionate to the rise in the cost of living. The cost of labour in a ton of steel was, however, excessive, partly owing to the high price of imported skilled labour, and partly owing to the large number of semi-skilled or unskilled workmen employed. In the former there had been considerable reduction by the substitution of Indians for Europeans and Americans, but the numbers of the latter could have been reduced without loss of efficiency. The Board recognized that the company had been handicapped in making economics by the labour unrest and the fear of strikes, but drew attention to the need for reduction of staff if the industry was to survive. The Board thus indicated early the real source of all the subsequent trouble. It is worth noting that Mr. Manek Homi who was afterwards so prominent in leading the big strike against the reduction policy, himself gave evidence before the Tariff Board advocating this policy.

3. Legislation was needed to give effect to the recommendations of the Tariff Board, and early in 1924 the Steel Industry (Protection) Bill came before the Legislative Assembly. Labour was immediately active in an endeavour to gain, in conjunction with the advanced political party, some concessions for themselves in return for the assistance to be given to the company at the expense of the general taxpayer. The Labour Association published a pamphlet describing their grievances and distributed it to all members of the Legislative Assembly as well as to some members of the House of Commons. This pamphlet dealt with recognition of the Labour Association and with a number of matters which had previously been included in the grievances and demands. The pamphlet was published too late to admit of any reply before the discussions in the Assembly on the Bill (which is reported in Volume IV, Part IV, of the official report of the Legislative Assembly Debates, 1924), but the Labour Association did publish a supplementary letter admitting that there were one or two actual mis-statements and in other passages the picture was overdrawn. Meanwhile the Secretary of the Labour Association was in Simla, conducting a regular campaign among the Indian Labour leaders there or with their aid. A conciliation committee met at Jamshedpur. It was headed by Mr. C. R. Das and included Messrs. Chaman Lall, Joshi, the Rev. C. F. Andrews and others from outside as well as members of the Labour Association. Mr. R. D. Tata and officers of the company, as well as representatives of the workers, were present, while Pandit Motilal Nehru and Mr. Rangaswami Iyengar were among the visitors. There is no official record of the proceedings available to the public but it would appear that the conciliation committee went over most of the matters raised in the pamphlet. On most points there was a satisfactory understanding, but a deadlock over the recognition of the Association. The obstacle was the presence of outsiders in the executive, and particularly with regard to the inclusion of G. Sethi, a discharged employee in it. The labour meetings at the time were larger probably owing to the

presence of distinguished leaders, but not large as compared with those in the strike four years later. The Association seems to have been still unorganized, the membership small, and the subscriptions difficult to collect, and irregular. The Steel Industry (Protection) Act, 1924, came into force on the 13th June, 1924.

4. It seems to have been the Rev. C. F. Andrews, who later organized the Labour Association, became its president and secured recognition for it. The difficulty about the appointment of a discharged employee of the company as secretary appears to have been surmounted by re-employing him in the company. Quarters were allotted to the Association and subscriptions to it were collected through the pay-bills. Each department elected a committee of five and a secretary; the committees form the general council and the secretaries form the executive. Two points have to be noted about it at this stage. Even at the time of its greatest membership it never included a majority of the workers; and it was never registered under the Trade Union Act, possibly because this subjected its accounts to public audit.

5. In December, 1926, came the third report of the Tariff Board on the Steel Industry. The second report had not dealt with labour matters. The third report, however, amplified and emphasized the need for a drastic reduction of the numbers employed (Chapter III, paragraphs 36-43) as a condition of continued assistance from the taxpayer. There were difficulties about this. The company had continued their policy of reducing covenanted hands, but a net reduction of men employed had to be made at a time when new plant was to be brought into operation. It was the company's efforts to do this that explain the unrest in 1927 which culminated in the big strike of 1928.

IV.—The year 1927 and the Six Months' Strike of 1928.

1. The following extracts dealing with the causes of unrest in 1927, which culminated in the six months' strike of 1928, are taken from a detailed report submitted by the Deputy Commissioner of the district to Government at the end of the strike. They are the views of a Government officer, without industrial training and with only partial knowledge of the factors ruling the situation, but are given for what they are worth.

"The strike at the Tata Iron and Steel Works is not an isolated or peculiar event. There is labour unrest all over India, and everywhere it presents somewhat similar features. For many years Indian labour was regarded as cheap, though a few persons pointed out that it was really an expensive form of labour because so much of it is required to produce a given result. With the increased cost of living, the truth of this has been realised and efforts made to increase of individual efficiency of the workman, to install labour-saving devices, and to jettison the surplus hands. This has caused restlessness and discontent. At the same time there has been a great deal of industrial legislation, based on western models rather than on first-hand experience of eastern needs, which is bringing about a fundamental change in the conception of the relation of master and man. The present troubles are a phase in the adaptation of agricultural peoples to modern industrial conditions. The disturbed state of the working classes of course provides an excellent field for the agitator, of which he is not slow to take advantage, but in its origin and nature the movement is economic and not political. Further, it is conservative rather than communistic; an attempt to resist a change rather than an attempt to bring about one. As regards the strike in Jamshedpur, if there is any peculiar feature in it, it is that the over-staffing problem was more acute, and the influence of outside agitators less than elsewhere.

"(ii) The iron and steel works did not develop from small beginnings, but sprang into existence almost at once. There was one large expansion more than doubling the size of the works in 1922. It was financed from the beginning on a lavish scale, and the pay both of the supervising staff and of the workers was fixed on a scale that to our ideas was excessive. Overstaffing was almost inevitable under these conditions. The men were inexperienced and had to be trained. The time of the great expansion of the works was a time when the prices of steel were at their zenith. Production was everything, and the cost of labour absorbed a very small fraction of the total value of a ton of steel. Then a few years ago prices began to fall, and in the meantime the cost of living had risen considerably. The cost of labour in the production of a ton of steel ceased to be negligible and became a very important factor. The Tariff Board drew pointed attention to the very high incidence of this item in the costing bill, comparing this company's results, not only with the annual figure of tonnage per man employed in western countries, but also in detail with the labour charges of other iron and steel works in this country. It was clear that the Tariff Board considered that the continued assistance to the industry at the taxpayers' expense could be justified only if, among other things, a serious attempt

was made to reduce the cost of labour. Reduction in wages was impracticable, and in point of fact Messrs. Tatas have always adhered to a policy of a continuous improvement in the standard of living among their workers. The remedy, therefore, had to be sought in the increased efficiency of the individual workman (including labour-saving plant) and a decrease in the number employed. The company had been making an earnest endeavour to deal with it for some years, first in respect of covenanted hands and then in respect of ordinary workmen, and the first step as regards the latter was taken in 1926 in the form of an announcement that vacant posts would not be filled. Even this mild step caused a certain amount of uneasiness among the workmen. Then came the work of the Labour Organization Department established for the purpose of carrying out the policy of the company with regard to their labour. This department adopted three main principles (a) the creation of a standard force and the relegation of surplus men to a spare gang from which vacancies would be filled until all were absorbed, (b) the change of the basis of pay from a monthly rate to a daily rate with a temporary compensation for loss involved, and (c) standardisation of wages for work done. The attempt was a failure. The enforcement of the first principle brought the department into conflict with the superintendents of departments, the application of the second and third caused resentment and a sense of insecurity among the men. The employment bureau was still in operation, and in spite of the declared policy of the company continued to recruit new men. The department failed and was eventually abolished after it had caused considerable unrest without any material reduction of the numbers employed. As late as April, 1928, the general manager gave a formal undertaking to effect reduction by using the ordinary turnover of labour and not by discharging them, but further experience shows that this could never have been done.

“(iii) The third principle, the standardisation of wages, deserves further consideration. In the first place it has to be admitted that Messrs. Tatas pay better wages and have more serious and earnest endeavour for the welfare of their workmen than any other concern in British India. The factor working against them has been the too rapid growth of the concern, especially the expansion of 1922. Wages are adequate and generous; but they are unequal. Compared with what we should regard as a moral standard, the excess of pay over it decreases from the top to the bottom. The salaries of covenanted hands are very large and have grown larger lately because the bonus on production has been fixed at rates which did not take into account the growing capacity of the plant. Smelters, for instance, are drawing from two to three times the amount of pay which they would draw at home. Apart from the inflated bonus, the officials of the company say that the pay of the covenanted hands is the rate necessary to attract competent men out to the east and could not be reduced. Be this as it may it certainly had caused a great deal of jealousy and a sense of injustice among ordinary workmen. The pay of the Indian skilled workmen is on a very generous scale and has proved to be sufficient to enable them to take some months' holiday without hardship; the pay of the semi-skilled is ample. The pay of the unskilled coolie class is an adequate living wage and no more. Thus the ratio of pay to the normal decreases from the top downwards and disappears at the bottom. Even so, however, wages are unequal, for instance, two men may be doing exactly the same kind of job and one may be drawing Re. 1 and the other Rs. 3 a day. The Labour Organization Department endeavoured to deal with this by standardising wages for particular jobs, though without reducing any person who for the time being was drawing over the standard wage. This, again, ran counter to a cherished conviction of the Indian whose only experience of a salary is that of Government service. This salary increases with years without any particular reference to industry or competence, and concludes with a pension. Such an arrangement is not possible in industry, but if one talked with the men themselves and not with their leaders, one could see that their minds were full of the idea of incremental pay. Another factor must not be overlooked. During the middle months of 1927 the shares of the company were rising, probably due to market operations rather than to their intrinsic value. This gave rise to exaggerated rumours as to the profits the company were making, and labour believed that they were not getting a fair share of these profits. An increment of pay was in fact promised as part of the reorganization scheme; and a very generous bonus scheme was put forward. But it came too late to stem the tide of dissatisfaction, and it was easily misrepresented as a dodge to get more work from the men for nothing.

“(iv) Another and very difficult subject for consideration is the character of the supervising staff; Mr. Lewis, writing after the strike of 1922, observed ‘the uneducated European or American of the smelter class and even of the superintendent class is ill-fitted for handling Indians whose language he does not understand, and of whose customs and prejudices he is entirely ignorant.’ I have come to the same conclusion independently, and I understand from the Inspector-General of Police that the same comment was made after the strike of 1920. I have discussed this with officers of the company, and the reply given is that the supervising staff is chosen for technical

qualifications which are the pre-eminent consideration, that middle-aged men cannot learn a language, and that a knowledge of the language and customs of the people is not essential to the running of a department of a steel works. I have ventured to suggest that if these qualifications cannot be expected from regular superintendents it might be advisable to employ a man possessing them to look after the welfare of labour; the answer to that is that the company wants no more labour-organizing departments after their experience of the last one. The company point out that a very large part of their supervising staff are Indian, but the Indian in authority seems to have less sympathy with his subordinates than a European has. The defect may be irremediable, but it is nevertheless a defect, and the ignorance of the supervising staff and the complete lack of contact between them and the men has played, in my opinion, a much larger part in the present discontent than the company is willing to admit.

“(v) Apart from the superior supervision staff, a class that has met with much criticism during the strike is that of the foremen, both Indian and non-Indian. They are said to be overbearing, abusive, and corrupt, and to wield too much power in the matter of appointment, promotion, and discharge. The company's officials admit that the foremen are a weak link in their system; a very great deal depends on the foremen and a class of satisfactory Indian foremen has not yet been evolved. But they point to the facts that disciplinary measures are taken at once against any foreman exceeding his powers, that corruption is a common Indian weakness, and that it is not possible altogether to prevent it. Further, it is said that when Mr. Subhas Chandra Bose at the end of the strike framed the twenty-three points which he wished the directors to consider, the complaint against the foremen did not find a place among them. On the other hand, the earliest formulated grievances included this complaint, and the experience of Government officers is that the ordinary striker in conversation, before he had learnt from his leaders to rehearse his demands, complained first and foremost against the foremen. In my opinion the misdemeanours of the foremen, interacting with the lack of contact between superintendents and workmen previously described, has played no small part in bringing about the present state of affairs.

“(vi) We then come to the minor grievances which appeared in the speeches made at strikers' meetings and were roughly summarized by Mr. Homi at a late period of the strike. They were all petty matters, many of them were matters which a sympathetic superintendent or a competent labour association could easily have settled out of hand or brought to the notice of the factory inspector; none of them was of sufficient importance to justify a strike and when it came at the end to the final settlement of issues, they all fell into the background. But their cumulative effect, aggravated by the fact that the men had no effective means of bringing them to notice, must not be ignored.

“(vii) At the beginning of the strikes the company addressed the Government of India and the local Government asserting that the strikes were the result of deliberate efforts of communists and citing evidence to prove this particularly emphasising that the methods pursued were copied from those of the syndicalists. This appears to me to have been an error and a particularly unfortunate error as it clouded the issues for a long time and prevented open-minded search for the real causes of the trouble. The communistic element that is, a deliberate attempt to subvert the existing social order, played a negligible part in the present strike. Avowed communists like Singaravelu Chetty and Mukund Lall Sarkar appeared at the outset, but exercised very little influence and soon fell into the background. There were a few persons of minor importance inside the works avowing the communist creed, but they carried little weight. Mr. Homi, the chief leader, is not a communist; he is an extreme individualist. Until Mr. Subhas Chandra Bose intervened at the very end, the strike has been singularly free from the influence of outside politicians.

“(viii) The point that must impress everybody who endeavours to study the causes of unrest in Jamshedpur is that the two issues which finally crystallised out and overshadowed all the others, that is mass reduction and lock-out wages, both arose after the general strike had started, and were not grievances that gave rise to it. Another point is that the strikers started for the most part without any formulated demands, and that the first work of the leaders was to ascertain and give expression to these grievances. They did not succeed in doing so until a late stage, and by that time demands arising out of the strike had overshadowed the grievances that gave rise to it.

“(ix) The causes of the strike may be briefly summarized thus. There has been for some years a re-adjustment of conditions in industry in India. Such re-adjustment must constantly occur, but recently it has been more rapid and deeper than is normal. In the Tata Iron and Steel Works the problem was acute, because the overstaffing was very great, and the need for reduction of working costs very urgent. If there had been better contact between the supervising staff and labour, or in the alternative

an efficient labour association, it is just possible that the re-adjustment might have been made without an outbreak. As conditions were, an outbreak was the natural result, and the extent to which it was stimulated by deliberate agitation was very small. The view that Mr. Homi caused the strike to serve his own ends is entirely mistaken. This situation had developed long before his active intervention."

2. The long duration of the strike may be put down to three causes. The first is the power of resistance of the men. This seems to be due to the fact that the skilled and semi-skilled men are partly agriculturists and only dependent in part on the wages of industry. This is true of all except the coolie class, some of whom depend entirely on their labour, but the coolie class both in this and in preceding strikes were not willing strikers. This and the good wages paid for some years by the company gave them resources which enabled them to hold out for some months without visible distress. The second cause was the importance of the issues. It was vital to the company to reduce their staff and a firm stand had to be taken against resistance to this policy. The men on the other hand were equally determined not to go back to work without the concession of at least some of their demands. The third reason is the lack not only of regular machinery for negotiation but even of any channel of communication between the management and the men. At the beginning the management refused to negotiate through any channel save the recognized Labour Association, which had forfeited the confidence of the men; the workers on the other hand refused to deal through any person other than their chosen leader, Mr. Homi, and thus the deadlock was complete.

3. The fact that the Labour Association, which had come into existence out of the committee formed *ad hoc* in the first strike, led in the second strike and struggled for four years for recognition, should prove ineffective as soon as it had established itself as the official mouthpiece of the workers, needs some explanation. It had in fact been fostered by the Trade Union Congress and the extreme political party; the executive consisted of men who had been leaders in the earlier strikes, but had since risen to responsible and well-paid posts in the company. The Association never seems to have appealed to a large number of the uneducated workers or to have been in close touch with real feeling in the works. It was artificial and unrepresentative. The men regarded it more as an agency of the company for dealing with labour than as men's representatives and one of the speakers at the mass meetings invented the phrase "company ke dalal" for the Association which was afterwards extended to every one who failed to join the strike.

4. From April, 1927, to April, 1928, there were sporadic departmental strikes which seem on examination to present two features (i) they were directed against the reorganization policy and (ii) they indicate an increasing loss of confidence in the Labour Association. In April and May, 1927, there were short strikes among the gas producers, and the khalasis of the open hearth and the new blooming mill. The declared grievances were the absence of a regulated scale of increment, arbitrary and unequal promotion, dissatisfaction with the methods of the labour organizing department; more particularly the change from monthly rates to daily rates and the proposed reduction of staff. The trouble was confined to these departments and the company dealt with it somewhat severely. Nothing further happened, as far as we know, till December, 1927, when the labourers of the hot mill and the shearing staff of the sheet mill (chiefly Sylhetis) struck. The mill was closed from Tuesday to Friday owing to overproduction and an endeavour was made to get other work from the men while the mill was not running. This strike also seems characteristic in being a resistance to an attempt to economize labour. The Labour Association took up this case, and told the men that they must go back to work unconditionally and there would be an enquiry into their grievances. The men went back, but throughout the succeeding months the action of the Labour Association in this case, described as the betrayal of the sheet mill, was one of the chief counts against that body. The next incident was in February, 1928, when the electrical crane drivers in the duplex plant went out, clearly because a scheme for the reorganization of their department was in preparation. Their expressed grievances, however, made no reference to this, but mentioned non-receipt of increment, low initial rates of pay, insufficient off-time, ineligibility for bonus, unsatisfactory channels for presenting grievances, and bad housing conditions. The action of the crane-drivers, however, is most important because they formed their own committee and determined to look outside the Labour Association for leaders. It was the crane-drivers who first approached Mr. Homi for advice, and it was their action which gave impetus to a movement that in a few weeks time was to make the recognized association powerless to promote the cause of the men or to restrain their actions. There is no doubt that from this time onward the discontented were in close contact with Mr. Homi. Despite the attitude of the crane-drivers, a deputation from the Labour Association waited on the general manager on their behalf. The general manager explained the scheme of reorganization, pointing out that it meant the employment of fewer men on higher rates of pay, and

a graded scale of wages ; moreover he promised that all grievances would be considered and that men in excess as the result of reorganization would not be discharged. The Labour Association further undertook that all grievances would be remedied within three months. The Association met with very hostile criticism. The men went back to work, but continued to hold meetings and to maintain their office and committee, and further defeated any attempt at reorganization by refusing to change their checks and arranging their shifts according to their own liking. On the 15th March the coolies of the new rail finishing mill struck work. They are aboriginals and complained of low wages, abuse by superiors, and failure of the latter to listen to their grievances. The leaders of the crane-drivers interested themselves in the matter, and on the 1st March Mr. Homi addressed the strikers and assumed the direction and control of them. However the Labour Association again intervened, and persuaded the men to go back unconditionally on a promise that their grievances would be redressed. There were other small strikes. On the 10th April the coupling porters and jamadars of the traffic department twice went out, apparently in anticipation of a reorganization scheme, and both times returned within a few hours. On the 12th April there was a brief strike in the machine shop. On the 17th April the sweepers struck, but in their case the Labour Association managed to secure some concessions which satisfied them.

5. There was now serious unrest throughout the whole works and, as usual, a certain number of outside agitators were attracted to it. Messrs. Singravalu Chetty and Makund Lal Sarkar made violent speeches in Jamshedpur. The Reverend C. F. Andrews came to Jamshedpur and did his best to deal with the trouble. On the 11th April a general meeting was held at which Mr. Homi presided and Mr. Andrews spoke. It was an endeavour to reconcile the Labour Association and the discontented workers but the opposition of the cranedrivers rendered it infructuous. At a mass meeting on the 14th April, the Reverend Mr. Andrews announced a very generous scheme of bonus or profit sharing, but in spite of his strong advocacy it was not well received, and he left the place. About the same time the general manager reaffirmed his promise that reduction would be effected by not filling vacancies and that no one would be discharged. The big strike began on the 18th April.

6. It may be convenient to divide the big strike into stages :—

(i) The strike of the sheet mill on the 18th April and of the boiler men on the 21st April. The latter led to the lock-out on the 30th April of some departments which were deprived of power.

(ii) The consolidation of the workmen under Mr. Homi leading to hartals (i.e., short demonstration of general strike) in sympathy with the strikers, which paralysed the works and reduced output without reducing the wage bill. This culminated in the closing of the works on the 1st June, except for those who had worked during the hartals.

(iii) From the 1st till the 26th June. There were abortive attempts to reconcile the Labour Association and the strikers. A complete deadlock as the company would not deal with Mr. Homi and the men would have nothing to do with the Labour Association. There was organized picketing to keep the men still working out of the works. Finally the management sought to release the deadlock by an announcement on the 26th June of the terms on which the works would be re-opened. The chief feature of these terms was that the company would adhere to its former promises except that it would only take back the men required, i.e., the company would use the situation to effect the required reduction at once.

(iv) A fortnight elapsed before any attempt was made to re-open the works and meanwhile the men became more firm and united. Between the 9th and the 16th July the management endeavoured to re-open on the terms proposed in the announcement, but the offer was rejected and met by more intensive picketing.

(v) From the 16th to the 28th July is the period of negotiations through third parties, chiefly Mr. N. M. Joshi and the Deputy Commissioner. The principal advance on the previous offers of the company was an offer of compensation for men to be discharged on reduction. The negotiations failed to bring about a settlement but the Chairman of the Company summarized the improved terms and issued them as a public notice on the 28th July.

(vi) From the 28th July to the 11th August was a period of comparative quiet. Mr. Homi was in Bombay negotiating with the Directors and trying to rouse the shareholders. On the 11th August came the third announcement of the company to the effect that all offers would be cancelled in respect of men who did not rejoin by the 20th August.

(vii) From the 11th to the 20th August. There was some attempt of men to rejoin, met by more intensive picketing.

(viii) The intervention of Mr. S. C. Bose leading finally to a settlement under which the men returned to work on the 13th September.

7. It is probable that a detailed account of this weary five months would serve no useful purpose, but it is necessary to amplify the above outline a little. The sheet mill men went out to the number of 1,100 on the 18th April. They were followed by the men of the merchant mill, but the latter soon went back. The sheet mill men on the following day gave a notice of their demands to Jamshedpur police-station as follows :—(i) A general increase of pay of at least 25 per cent. (ii) A graded scale of pay with an annual increment. (iii) Bonus at the rate payable to covenanted hands. (iv) the same pay as rollers in the bar mills. (v) Ill-treatment by European hands to cease. (vi) Removal from the mill of a member of the supervising staff (who had been responsible for the attempt to economize labour in the previous December). (vii) Formation of a committee of 15 workmen to be consulted before any man is suspended or discharged.

A demand for increase of pay is inevitable in a strike though the men of this department were relatively well paid. On the 19th April some of the men tried to drift back to work but the mill was definitely closed at 2 p.m. On the 21st April 220 men of the boiler furnaces struck. They wanted an increment of pay and this was their only demand. Perhaps they had more reason than others, for the pay was not high and the work is exacting.

8. These two departments formed the nucleus of the strike, and the hartals which led to the closure of the works were gestures of sympathy with them. The general manager took no immediate action beyond issuing a temperate notice calling attention to what the company had already done for the men, and warning them of the consequence of this sort of conduct. He took the view that there were no genuine grievances; that such inequalities as existed would be removed by the reorganization scheme; and that the departmental strikes had been fomented by the agitators to reduce output without materially reducing the wage bill. He would deal with the men only through the recognized Labour Association and that association had met the Deputy Commissioner and admitted that as far as the strikers were concerned they were helpless. On the 27th April about 800 men of the new rail-finishing mill struck, but returned to work after a few hours. On the same day the blast furnace stock house men struck and remained out for a few days.

9. Then the general manager took action. He closed the merchant mill, plate mill, old rail mill, old blooming mill, and bar mill, which had been deprived of power by the boiler-men's strike and laid off about 2,000 men. This had been expected and caused no excitement. He then proceeded to deal with the crane-drivers who were told that they could either change their checks according to the company's orders or go. For the most part they collapsed; one or two only were dismissed. On the 8th May an order was passed dismissing all the strikers.

10. The Labour Association had disclaimed all responsibility for the strikers but were endeavouring to assist the men locked out by the closure of certain departments. The dismissed strikers definitely accepted Mr. Homi as their leader and Mr. Homi's followers increased day by day. Mr. Homi tried to capture the Labour Association for the men. Elections of the executive of that body were overdue and both parties tried to hold elections and contested the right of the other party to do so. One of Mr. Homi's lieutenants instituted a suit against the executive of the Labour Association for an injunction restraining them from spending their funds, which suit was eventually dismissed. The dispute over the Labour Association seemed to cloud other issues for the time.

11. On the 18th May a hartal of one hour in sympathy with the strikers was attempted in the works but it failed. Meanwhile new boiler crews had been trained and the closed departments with the exception of the sheet mill re-opened. Apparently the works had been restored to their previous condition and the struggle was at an end.

12. Those who took that view, however, received a rude shock on the 25th May when another hartal was attempted (this time for 24 hours) and was a complete success. It was effected by pickets who from 6 a.m. onwards prevented every shift from going into the works. It was a triumph of organization and indicated the real temper of the men and was really the turning point of the strike. It was followed by meetings of thousands of men almost every night, generally with Mr. Homi, now the unquestioned leader, as president. The meeting of Friday, the 25th May, passed resolutions condemning the lock-out, urging the management to receive a deputation of strikers headed by Mr. Homi and praying for the intervention of Government. They formulated their minimum demands as follows :—(a) minimum wage of Rs. 1-2-0 a day or Rs. 30 a month; (b) a general increase in the departments that had submitted representations to be fixed in consultation with Mr. Homi and the men's leaders; (c) *Immediate stoppage of the proposed reduction of staff.*

Another hartal was to be observed on the 1st June, if these demands were not conceded.

13. At this stage the general manager felt that the organized resistance to the reduction policy absolved him from his promise to effect reduction without discharging any of the existing staff and he discharged six hundred men of the electrical department. At this time Mr. N. M. Joshi came to Jamshedpur. It is understood that he came at the invitation of the Labour Association, and with the knowledge and consent of the directors. He tried to address a mass meeting but was refused a hearing and left. The Labour Association tried to carry on counter-propaganda against the proposed hartal but without success.

14. The hartal of the 1st June which was to last for 48 hours on this occasion was as complete as the previous one. The general manager on that date issued a notice saying that it was impossible to operate the works in the face of departmental strikes and weekly hartals (from each of which the works took some days to recover), that all men who failed to attend their work that day would be deemed to have left the company's service and that the works would remain closed until further notice. This did not apply to those who worked during the hartal.

15. On the morning of the 3rd June, the close of the hartal period, the men presented themselves at the works at 6 a.m., but were refused admittance and dispersed quietly. We have now three groups :—(a) the dismissed strikers ; (b) the hartalists who were " deemed to have left the company's service " and were estimated at about 15,000 men ; (c) those who worked during the hartal and were allowed to continue at work. These were estimated at about 2,500 and included the Labour Association and its supporters, all those who had been prominent in the previous strikes, most of the foremen, the Bengali clerical staff, and the Pathans.

The coolie class had been kept out by timidity, but were not willing strikers or hartalists. Of the rest many of those whose homes were near like the Biharis and Oriyas went home at once and waited for better times. The Sikhs, Punjabis, and Madrasis remained and were prominent in the struggle.

16. Immediately after the closure of the works there was an attempt to effect a reconciliation between the Labour Association and the men led by Mr. Homi. Several outside leaders including Mr. Joshi took a hand in this but it failed completely. This was partly due to the fact that the Association's record inspired no confidence ; but more in all probability to an interview given by the general manager to Mr. Kishori Lall Ghosh, in the latter's capacity as a journalist. The interview was published. The general manager stated his view that there were no genuine economic grievances and if there were, they could be remedied through the Labour Association ; the present troubles were the result of plotting by communists and by Mr. Homi who had a personal grievance against the company (he had once been an employee) ; that negotiations could be opened with the men at any time through the recognized Association, but that if Mr. Homi became a member of that Association, recognition would be withdrawn from it ; that the reduction policy must continue, though details were not yet ready for publication ; and lastly that wages for the period of idleness would on no account be paid. The Labour Association suggested that the whole matter should be left to Mr. Joshi and their funds placed in trust with him, while Mr. Homi should stand out altogether. The Foremen's Association made a similar suggestion to Mr. Homi that he should stand aside in order to make negotiation possible ; but he replied that he took his stand on the rights of the men to choose their own representative, that he had taken up the cause of the men because the Labour Association had failed them and that he declined to desert them. He also explained his demands, which amounted in effect to complete restoration of the *status quo* as it stood before the sheet mill and boiler strike, a stoppage of the reduction policy, and then a detailed examination of the grievances in consultation with departmental committees. During this time both Mr. Homi and the Labour Association had suggested Government intervention ; but the local Government replied that they had never seen a clear-cut statement of the issues and in any case they had no legal power to intervene except at the request of both parties.

17. There was clearly a dead-lock which could only be released by some move on the part of the company. On the 18th June representatives of the directors and managing agents visited Jamshedpur. They discussed the situation with the general manager and the deputy commissioner and also met some of the workmen both those working and those outside. The result was an announcement issued on the 26th June. It summarized the situation and re-affirmed promises about bonus and an increment in wages. It announced the directors' intention of making an immediate reduction of staff, but in so doing none of those who remained loyal during the hartals would be discharged, while as regards others preference would be given to men according to length of service. The hartalists who had been deemed to have left the company's service would be re-engaged to the number required by the company without break of service. The strikers of the sheet-mill and boilers would be similarly re-engaged, but their service would be held to be broken ; the benefit of unbroken

service would be restored after twelve months' good behaviour. Those not re-engaged would receive the whole of their provident fund (they had technically forfeited the company's contribution by leaving its service) and a ticket to their homes. Finally it was clearly stated that wages would not be paid for the period of closure of the works; and that the Works Service Rules would be revised so as to make it clear that wages would not be due for any period during which the works were closed by the management for any reason.

18. An important point to note about this announcement is that the company proposed to use the situation to effect the reduction in staff immediately. For the rest it was a fair offer to the men to be re-engaged but offered little to those left outside. Mr. Homi was at this time in Bombay, seeing what he could do there, but under his advice by telegram and the guidance of other leaders, the offer was rejected. The workers' counter-manifesto criticised the reduction policy, and demanded a straight increment in wages instead of bonus (although they had been clamouring for the bouns for years and continued to ask for its extension afterwards). They drew attention also to a weak point in the announcement; the proposal to revise the Works Service Rules amounted to an admission by the company that their action had been a breach of the contract of service; they, therefore, insisted on their demand for lock-out wages. At the same time the strikers issued a list of immediate demands:—(1) All sheet-mill and boiler men to be taken back on the old privileges with a substantial increase of wages. Detailed grievances to be considered in consultation with labour representatives within a fortnight. (2) All employees put under reduction or discharged for their connection with strikes or hartals to be taken back, with pay for the period from discharge to re-instatement. (3) Reduction to be stopped. (4) Lock-out and strike period wages to be paid. (5) A general increment of wages to everybody. (6) The minimum monthly wage to be Rs. 30 for men and Rs. 22 for women. (7) General bonus to be extended to all non-covenanted employees irrespective of departments and nature of work. (8) Grade and time-scale to be fixed for all jobs. (9) Detailed departmental grievances to be settled in consultation with labour representatives within a reasonable time. (10) The service and leave rules to be revised in consultation with labour representatives.

19. The management allowed about a fortnight to elapse before taking action on their announcement and then between the 9th and the 16th July the works, department by department, were re-opened. The only response was intense picketing by large bodies of men, sometimes hundreds in number all round the works. The police force was adequate and in complete control of the town; men could have rejoined if they wished under the protection provided. It was clear that the skilled workmen did not wish to rejoin; the cooly class wanted to rejoin, but did not dare face the pickets, although in fact they were in no personal danger. The Deputy Commissioner felt that he could not reasonably stop picketing, particularly as the men's own leaders were making every effort to keep them peaceful. But crowds of hundreds of shouting men are not pickets in the ordinary sense of the word; and, if this kind of conduct was to be tolerated in the town, it was a natural corollary that those who were alarmed by it and wanted special police protection in order to enable them to work were entitled to receive it. It was accordingly decided to tolerate this kind of picketing provided the pickets left a clear road way and did not physically restrain anybody; at the same time those who desired it were escorted through the pickets by the police. Later several regular convoys of some hundreds of coolies were escorted daily to and from work by the police. At the same time any place were picketters behaved in a violent or disorderly manner was put out of bounds for picketing; in the course of the strike three areas in the town were closed to picketing on this ground.

20. The offer of the management had met with no response and the deadlock due to the absence of any channel of negotiation remained. The first person who attempted to mediate was Mr. Joshi. He and Mr. Homi met the Deputy Commissioner on the 16th July; and that afternoon there were conferences at which representatives of the Directors, the General Manager, the Deputy Commissioner and Mr. Joshi were present. These lasted till 10 p.m. the following evening. The only advance achieved was that the company were prepared to consider compensating the men not re-engaged. It appears that it was mainly Mr. Homi's opposition that wrecked these proposals; he was prepared to agree to reduction in return for compensation to the men, but he demanded a definite statement as to increment as well. Mr. Joshi left for Bombay on the night of 18th July. Mr. Jamnadas Mehta spent twenty-four hours in Jamshedpur on the 23rd July. His intervention effected nothing; he talked to the men about the crore of rupees that the general taxpayer had spent in bounties to help the company and the result was a wild rumour all over the town that he had brought a crore of rupees from Bombay to finance the strike.

21. The Deputy Commissioner was then asked by the Directors to try to find some method by which the management could be put into communication with the strikers and hartalists without the intervention of the Labour Association which was

unacceptable to the men or of Mr. Homi who was unacceptable to the company. This, however, was soon ascertained to be impracticable. Mr. Homi had gained an ascendancy over the men which made it certain that they would not act without his advice or otherwise than through him. In the end, therefore, the Deputy Commissioner merely acted as an intermediary between Mr. Homi and the directors and General Manager. Three-cornered discussions went on in this way for four days and at least secured some advance. By the evening of the 24th July the following position had been reached on the main issues :—

(a) *Reduction.*—The management adhere to their intention to effect immediate reduction, but they have found on preparing the lists that the number to be discharged is not so large as was previously expected. It would amount to 3,300–3,500 or about 18 per cent. of the monthly paid staff. No man would be discharged who had been in the company's service before 1920, and in the case of those who had joined since 1920, preference had been given to men of longer service. More than half the men to be discharged had less than two years' service. As regards the weekly paid staff, the reduction would be in the same proportion ; but this weekly labour fluctuates so much that the reduction can be carried out in the ordinary course. No man will be discharged merely on account of his activities during the strike.

(b) *For those to be discharged.*—The management offer in addition to everything offered in their announcement, one month's pay for each completed year of service.

(c) *For those to be re-engaged.*—In further elucidation of their previous announcement of the 26th June the management announced :—(i) *Increment.*—For this five to six lakhs will be available and will be distributed so that about 75 per cent. of it will be allotted to those who draw now less than Rs. 2 a day. Wages for all jobs will be standardised ; those drawing less than the standard rate will be raised to it, those drawing more than the standard rate will continue to draw their old pay till they are discharged or promoted. The increase to the coolie class will depend on the cost of the increment to the monthly paid workers, but will probably be about 10 per cent. of their present wages. (ii) The proposal to revise the Works Service Rules would be dropped.

As regards minor points, conciliatory statements were made but there are two important points on which the management were unyielding :—(1) Lockout or strike wages would not be paid ; (2) the special conditions attaching to the employment of the boiler and sheet-mill men would not be altered.

22. With regard to these terms it is to be noted that they do not represent a settlement by negotiation, but merely a further offer by the company. Mr. Homi would go no further than an agreement to put these terms before the men and leave them to decide. He did so at mass meetings on the 25th and 26th July and though he left the decision to the men, he seems by his manner to have given them a bias in favour of rejection. Anyway the terms were rejected. Subsequently they were published as an announcement in English and Hindi by the management ; and there is information that at this time many of the men would have been glad to accept these terms. The notice issued on the 28th July and the same day the representatives of the Directors left Jamshedpur.

23. Then followed a comparatively quiet time. Men by this time were rejoining in fair numbers and no very strong efforts were made to prevent them from doing so. The General Manager seemed inclined to resort to a policy of attrition. The strike leaders on the other hand seemed to take the view that as long as the really skilled men remained on strike, as they did, the works could not be run ; if the others re-joined they rid the strikers of liability without affecting the general position. But both Mr. Homi and the Labour Association now approached Mr. Subhas Chandra Bose who sent emissaries to Jamshedpur to study the position. Meanwhile Mr. Homi went off to Bombay to approach the directors and rouse the shareholders. The centre of interest shifted there. We have no precise record of what happened there, but it seems that Mr. Homi was conducting negotiations with the shareholders through Mr. Jamnadas Mehta. These negotiations had no effect on the course of events and broke down. On the 11th August, after the breakdown of negotiations in Bombay, the management with the full support of the Directors issued another notice saying that from the 14th August men would be re-engaged whether on the wanted lists or not, and after the 20th August new men would be engaged. Any one applying for work before the 20th August would receive the compensation promised, if he could not be re-employed because his place had been filled. In other words the company by this ultimatum put a term to all their previous offers which lapsed if not taken by the 20th August.

24. The effect of this notice was to force the pace. Men rejoined in fairly large numbers but to counteract this the picketing was intensified and every road in the town was filled daily with large demonstrating crowds. Instances of lawlessness and violence became more frequent and intimidation of workers in their villages became

so serious that strong pickets of police, finding night patrols, had to be established in several places. On the 18th August Mr. Homi returned from Bombay, and had a long conference with the Deputy Commissioner, who in turn saw the General Manager in an endeavour to find some way out before the 20th August, when the company's ultimatum would expire. In the evening Mr. S. C. Bose arrived and he and Mr. Homi attended a mass meeting together.

25. The first step taken by Mr. S. C. Bose was to intensify the strike in all its aspects. His personal influence brought out most of the Bengalis who had hitherto not joined the strike; and the vigorous picketing inaugurated by him reduced the men in the works to the lowest point. He made no attempt to meet the manager or to approach the company or directors. The most important point, however, is that to regularize his position, he took office in the Labour Association thus reviving that body, though he made some of the existing executive resign. Moreover, from this point onward the strike was under the control of political leaders. Hitherto it had been free of political influence. The leaders now attempted to bring about an estrangement between the men and the Government officers, with whom previously they had been on very friendly terms and this threatened to make the duty of maintaining law and order more difficult. In spite of the failure of the regular negotiations, the Deputy Commissioner was still having frequent meetings both with the General Manager and the men's leaders in the hope of finding some way out, but there is reason to believe that the new leaders were definitely against a settlement through this channel.

26. On that occasion, Mr. S. C. Bose did not remain in Jamshedpur, being busily engaged elsewhere. He paid another flying visit on the 26th August. On the 28th August some of the directors and the Commissioner of the Division arrived in Jamshedpur. Meanwhile some of them visited Calcutta for some purpose connected with the strike and on the 1st September on their return they met the Commissioner and the Deputy Commissioner. There was a frank discussion of the whole position, but the visit to Calcutta had introduced new factors, and the discussion necessarily led to no conclusion.

27. On the 3rd September, Mr. S. C. Bose returned to Jamshedpur and entered into a long discussion with the Directors which lasted the whole of that day and the two following days until mid-day of the 6th September. At 1 p.m. on that date the Directors asked the Deputy Commissioner to meet them urgently and informed him that the negotiations with Mr. S. C. Bose had failed in spite of a distinct advance on the previous offers, including a larger amount of money for a wage increment and a promise of loans to meet indebtedness incurred during the strike. They suggested another scheme for negotiation and asked the Deputy Commissioner to help them in it. He consented, but almost immediately afterwards, certain persons came from Mr. S. C. Bose suggesting a renewal of discussions. This was done and it is believed that the basis of the proposals was that the men should yield on the subject of lock-out wages (if they received loans) and the company should abandon the proposed reduction. The negotiations failed and the Directors left Jamshedpur on the 10th September, leaving the General Manager full powers to settle on any terms he thought fit. On the morning of the 11th the General Manager told the Deputy Commissioner that he had very little hope of a settlement and that it looked like a fight to a finish. Feelings were now running very high and the whole situation was distinctly dangerous. To complicate matters there had clearly been a split between Mr. S. C. Bose and Mr. Homi. On the evening of the 11th September, Mr. Bose and the General Manager came to terms, the chief items of which are as follows:—

(i) Everyone, including those discharged since the beginning of the departmental strikes and the dismissed boiler and sheet-mill men, to be taken back at once without breach of service except—(1) those who have already taken their settlements; (2) those who do not present themselves at the works within three weeks of the re-opening; (3) those who are not required by the company and voluntarily resign on the terms as regards compensation already offered to the reduced men. (ii) The men returning to work will be divided into the standard force and the spare gang. Vacancies in the standard force will be filled from the spare gang and there will be no new recruitment. All the men in the spare gang, not previously absorbed, may be discharged at the end of twelve months. (iii) Pay for the period during which the works were closed will not be given. (iv) A loan of one month's wages will be advanced to anyone applying for it, to be recovered in twenty equal instalments from January, 1929. (v) The sum available for increments will be raised from five to seven lakhs. (vi) The proposed alteration in the Works Service Rules will not be enforced. (vii) There will be no victimisation.

It is known that Mr. Homi disapproved of certain terms in this settlement and it was doubtful whether men would accept it. They did so, however, and returned to work on the morning of the 13th September.

V.—The Period following the Strike of 1928.

The strike had resulted in a compromise over the two big issues. The reduction policy was to continue in the form in which it had begun before the strike, but immediate reduction was stopped. Lock out (or strike) wages would not be paid but in their place recoverable loans would be given. A new principle had been admitted in the form of compensation for loss of service ; the previous promise of a bonus scheme was ratified and a substantial increase of wages promised in addition ; the proposal to change the Works Service Rules, so as to give the men no claim where the company had to lay off men for any reason, was dropped. The most important point, however, is one that does not appear in the published terms. The Labour Association was restored to its former position and Mr. Homi and the new Union formed by him had been excluded from the negotiations. Thus a vital issue, the right of the men to form their own union and to choose their own leaders had been left in the air ; the strike-weary men had accepted the settlement without thought as to the channel through which it had come. Indeed the majority of Mr. Homi's own committee were in favour of accepting the terms, but their leader, Mr. Homi, was not going to drop this matter and that explains the history of the next few months.

2. It took a long time to restore order and confidence in the works, but the main interest now shifted outside where a dispute between two parties of the workers was substituted for the dispute between labour and capital. Mr. Homi dissolved the temporary association which he had organized during the strike and in its place founded the Jamshedpur Labour Federation, which was intended to include all labour in Jamshedpur and not merely that of the Iron and Steel Company. There were frequent crowded mass meetings, rendered turbulent by the rivalry between Mr. Homi's followers and the old Labour Association, and these meetings gave the Deputy Commissioner and police much more anxiety than the meetings during the strike had done. Mr. Homi's immediate policy was to consolidate his federation and then to secure recognition from the company. The situation in this respect was much the same as after the strike of 1922, with the difference that in addition to an unwilling employer there was also a rival union. The Federation quickly grew in strength and numbers and included most of the real manual workers ; the Association still appealed mainly to the Bengalis and more educated men. Further, the Association still maintained the connection with advanced political leaders which had characterised it throughout, while Mr. Homi, the leader of the Federation, was strongly opposed to Congress politics. The membership of the Association increased temporarily as the settlement was working itself out and representations of individuals in this connection were most conveniently submitted through a recognized body. There was constant recrimination and once or twice actual collisions between the representatives of these bodies. Meanwhile the company were taking measures to rid themselves of Mr. Homi, whom they regarded as the great obstacle in the way of peace, and in pursuance of this policy they instituted a civil suit against him and others claiming damages on the ground that the defendants had procured a breach of contract by the workmen, and the company obtained an *ad interim* injunction restraining Mr. Homi and others from pursuing a similar course of conduct in the future. The Labour Federation was also attempting to promote short *hantals* in the works until it should be recognized, but these on the whole were unsuccessful.

3. The company appointed a welfare officer soon after the strike ended and endeavoured to provide recreation for their men. The Labour Federation on their part promoted sports for Christmas and New Year's Day, but these came to a premature end owing to the disorderly conduct of the crowd. Mr. Homi at this time was much occupied with Tinsplate affairs (see Part VI) and the formation of a union in the Cable Company, but in February he again turned his attention to the Iron and Steel Company. The Labour Federation was registered under the Trade Union Act, the first registered union in Jamshedpur. But it needed money, and its agents were carrying on an active campaign for the recruitment of members and for realizing the subscriptions. The company started to prosecute agents of the Federation found within the works premises on Federation business on the ground that it was a criminal trespass. The Federation retaliated with a criminal case for cheating against the Labour Association clerks, on the ground that they were enrolling members by taking thumb impressions of illiterate persons on papers which purported to be resignation forms, but were really applications for enrolment. The struggle culminated on the 21st February, when a party of supporters of the Federation raided and wrecked the Labour Association's office. Mr. Homi at the mass meeting failed to condemn this outrage, and in fact spoke of it as the natural outcome of the company's policy. On the 23rd February there was a large and menacing demonstration by the Federation supporters outside the General Manager's office, and further demonstrations were threatened if recognition was not granted. Excitement ran

high, and the speeches in the meetings became increasingly violent. A deputation of the Labour Association came to see the Deputy Commissioner in a great state of alarm at the turn events were taking.

4. Early in March the company surrendered to the inevitable and decided to recognise Mr. Homi and the Labour Federation. Mr. Homi very soon established his position in the works and became a member of certain boards set up by the company to deal with grievances. These boards, however, seem rather intended to deal with individual disciplinary cases than with general grievances, and there still does not seem to be any standing machinery for the settlement of general disputes in the industry. The company further provided the Federation with an office and Mr. Homi himself with a residence in Jamshedpur. The Labour Association still continued to exist, but when the Federation was recognised, the former gradually sank into insignificance. The company dealt equally with both and collected the subscriptions of both through the pay bills. The president of the Federation alone, however, had an official position on the company's boards of enquiry, and the Federation had by far the larger membership. The Federation maintain a banking account and, being registered, have to publish an audited balance sheet, while the Association, though they obtain their income through the company, keep no banking account, and as far as is known publish no accounts. Meanwhile Mr. Homi and the Federation pursued a policy which may be briefly described as aiming at a readjustment of Mr. Bose's settlement according to their own views of what it should have been. This readjustment includes (a) complete stoppage of the reduction, (b) conversion of the loans into lock-out wages, and (c) substitution of a straight increment for the bonus with redistribution of the amount given as increment after the strike. The Federation, however, received a very severe set-back in or about July, 1929, owing to internal dissensions over the accounts. At the same time a letter purporting to be written by Mr. Homi to a friend in Bombay, which seemed to indicate that he was using his position to further speculative transactions in Messrs. Tata's shares on the Stock Exchange, fell into the hands of the opposite party. Some months later the letter was published in *Capital*, and so far has not been repudiated by Mr. Homi. After his set-back Mr. Homi appears to have found that in many matters the company were not so accommodating to him as they had been before, and indeed there are indications that the company would have liked to take the opportunity of restoring Mr. Bose and the Labour Association. In fact the company has quite recently made the concession of remitting the recovery of the loans altogether (there had previously been an eight months' moratorium), but in so doing they have represented the concession as made to Mr. Bose and not to Mr. Homi. The rivalry between the two unions is still the dominant factor in Jamshedpur labour politics, and it is a rivalry which in the long run may injure both the company and the men. But for the last year interest has largely been diverted from the Iron and Steel Works to the Tinplate Company of India at Golmuri, whose affairs are the subject of the next note.

VI.—The Tinplate Company and the Strike of 1929.

The Tinplate Company of India is the largest of the associated companies, and its works are situated at Golmuri, about two miles from the works of the Iron and Steel Company. It was founded after the war for the purpose of securing the supply of tinplate in India, and its promoters and chief shareholders are the Burma Oil Company, who buy most of the output, and the Tata Iron and Steel Company, who supply the tin-bar. It has been a technical success from the beginning, but its financial results have not been equally satisfactory. It enjoys a protective tariff on imported tinplate. The whole position is fully explained in the various reports of the Tariff Board (Chapter IV of the report of 1924, Chapter IV of the report of 1925, and Chapter XVIII of the report of 1927).

2. As regards labour conditions generally attention may be drawn to paragraphs 219-221 of Chapter XVIII of the Tariff Board's report published in 1927. This speaks of Indian labour conditions as very satisfactory, and indeed until 1929 the concern has been singularly free from labour trouble. There have only been two small strikes of very short duration which would hardly merit mention except that one of them furnishes an instance in which a Government Officer was able to give substantial help in bringing about a settlement. At the outset many skilled covenanted hands from Wales were employed, but the number of these has been steadily reduced and replaced by Indian labour. The Indian labour force at the beginning of the strike consisted of about 3,000 men. They were largely Muhammadans from Sylhet and Dacca; the next community in importance were Punjabis, while a number of Anglo-Indians, Bengalis, Oriyas and Madrasis were employed. The unskilled labour included a large number of Chattisgarhias and Hos.

3. *The Causes of the Strike.*—The strike may be attributed in the main to the excitement caused by the sudden and, to many, unexpected result of the strike in the Iron and Steel Company's works. This ended in a settlement largely in favour

of the men at a moment when it was generally believed that all negotiations had failed and the situation must continue until the men had to surrender unconditionally through exhaustion or abandon the fight and return to their fields. During the strike in the Iron and Steel Works, Tinsplate had to work half time owing to lack of tin-bar, but paid full wages, thereby incurring an ineffective expenditure of about two and a half lakhs, in order to prevent the infection spreading. As long as the issue in Messrs. Tata's works was in doubt this policy was successful, and nothing happened in Tinsplate. It was the sudden and unforeseen ending that upset the men, and there is no doubt that from this point onward there was a party in the works who believed that a strike was a panacea for all evils, and that Tinsplate too must have a union and a strike. Added to this, however, there were certain positive causes of discontent. The men of Tinsplate naturally compared their conditions, not with those of labour in India generally, but with their nearest neighbours, and in certain respects these conditions were less favourable than those in Messrs. Tatas. Moreover, during the strike in the Iron and Steel Works the output of tinsplate had been reduced, and consumers expecting a longer strike had taken large stocks from other sources. Consequently there was a fall in the demand for tinsplate and a restriction of working days, with an equivalent loss of wages. It must be remembered also that the rivalry between the Federation and Association in the Iron and Steel Works was intimately related to the general unrest.

4. *The Formation of the Union.*—The General Manager of Tinsplate, who is himself an ex-labour leader and further, no doubt, had seen the results of the policy towards trade unionism previously adopted in Jamshedpur, took a friendly attitude towards the new union from the beginning. There was some delay because the men were divided among themselves, some wishing to have Mr. Homi and others Mr. S. C. Bose as president. There was thus a division amongst them corresponding to the division in Jamshedpur between the Association and the Federation. Finally a compromise was effected by inviting Mr. Daud, alderman of the City of Calcutta and president of the Seamen's Union, to take the office. Early in January, 1929, there was a meeting between the management and the new union and recognition was extended to it. At the same time there was a frank discussion between the General Manager and Mr. Daud; an understanding was reached on some minor matters, but the General Manager was able to convince Mr. Daud that any relaxation of the restriction of working days was not possible for the moment. Mr. Daud conveyed this to the men and counselled patience. This was not acceptable to the union, who threw over Mr. Daud and invited Mr. Homi to take the lead.

5. Mr. Homi's position in the Tinsplate union was not very secure. There was always a party against him, and his attempts to amalgamate the union with his federation laid him open to suspicion. But he established himself early by the spectacular restitution of two dismissed men, and he then entered into negotiations with the management concerning all the grievances and demands of the workers, with the result that on the 7th February, 1929, a settlement was announced which seems extraordinarily generous and favourable to the men. It represented the maximum which the company could afford. It provided for an increase in rates of pay, a bonus scheme, the institution of a provident fund and maternity benefits, and a large increase in housing. It also included an undertaking to keep the works running full time as far as possible. The formal announcement of this settlement, over the signature of Mr. Homi, spoke in the highest terms of the courtesy and consideration of the management.

6. The next few weeks were occupied in working out the details of the settlement. There were dissensions over this, and there is also reason to believe that there was a militant party in the works who did not want the settlement to succeed, and grounds for suspicion that this militant party was encouraged by the Labour Association with the object of discrediting Mr. Homi. Meanwhile, as a natural result of unrest, indiscipline in the works with consequent suspensions and discharges was on the increase. There were lightning *hartals* on the 7th and 8th March, but Messrs. Homi and Giri persuaded the men to resume work. From this point onward trouble over the suspension and discharge of insubordinate employees obscured more substantial issues.

7. On the 5th April the management met the union officials to discuss the matter of these suspensions and dismissals. The General Manager went to extravagant and almost fantastic lengths in an endeavour to conciliate the men. He offered to try the experiment of not suspending or discharging any man for any reason whatever for a week and meantime simply to bring all cases of indiscipline to the notice of the union. But, while Mr. Homi was more than satisfied, other members of the union were not to be conciliated by any means. On Sunday, the 7th April, there was a general strike.

8. The strike began without notice and without formulated demands, but these are common features of an Indian strike. The point that the strike began without

the permission of the union is liable to misconstruction, since there is no room for doubt that some of the leaders of the militant party were inside the union executive. The men themselves were not to blame. They were hopelessly misled.

9. As soon as the strike was complete the union began to get busy formulating their grievances and demands. The strike had been called without the knowledge and against the advice of Mr. Homi, and he resigned. At the same time he did not dissociate himself altogether from the strikers. He was prepared to accept the office of president again if a fresh committee were elected. The election, however, resulted in the return of the same committee and Mr. Homi broke away altogether. Towards the end of April he made a speech to the men telling them they had been misled and advising them to go back to work.

10. *The new hands.*—The labour force numbered about 3,000, and in the first instance practically all went out. A number of men left the place and went back to their homes. This included a large number of Sylhetis. Very soon after the strike began the company attempted to resume work. The company's own men began to drift back; but the most important factor was the new hands which the company began to recruit as soon as it was apparent that no general resumption of work by old hands was likely. These new hands came from various sources. A number of them were men who had taken their compensation and left the Iron and Steel Works after the strike of 1928. Some were men who at some time or other had been employed in Tinplate but had saved a little money and returned for a time to their fields as the Indian workman often does. Only a small part of them were men entirely new to industry. These new hands accumulated rapidly, and it must be noted that it was this factor rather than anything connected with the merits of the dispute that led to the demand for the intervention of Government. On the 12th May a resolution was moved at a mass meeting of strikers asking for such intervention. On that date 815 old hands (i.e., men employed immediately before the strike) and 1,005 new hands were working. The company thus had about two-thirds of the total force required. Immediately following this resolution came a partly successful effort by Messrs. Gurudit Singh, Jawahir Lall Nehru and Daud to bring out the old hands again, but this merely gave impetus to the recruitment of new men. Meanwhile the request of the men for intervention had been backed by telegrams from influential labour leaders and Government directed the Commissioner of the Division to examine the case for intervention. The Commissioner met both parties between the 26th and the 28th May. By the latter date the old hands had decreased to 627, but the new hands had increased to 1,341, making a total of 1,968 in the works.

11. *The Case for and against Intervention by Government.*—The Trade Disputes Act had by then become law and intervention under that Act could have taken the form either of a board of conciliation or a court of enquiry. The problem of the new hands stood on the threshold. To the men settlement meant the discharge of the new hands to make room for the whole of the old hands (i.e., those working immediately before the strike), and then a discussion of the grievances which, however, were quite a secondary matter. The new recruits were not men casually in search of employment, nor for the most part men of a type who would be willing to abandon the employment they had obtained. The company had given them some guarantee of permanent employment, and it was not reasonable in the circumstances to ask the company either to break faith with its new men or to compensate them for a breach of contract. The ruling fact was that half of the strikers could not return to the works without an equivalent discharge of the new recruits. The intention of the Trade Disputes Act is that Government should intervene if there is a chance of achieving by means of a conciliation board a friendly settlement between the parties, or if the publication of the results of an investigation into the merits of the dispute is likely to focus public opinion on the dispute and thereby induce the parties to agree to fair terms. We may consider first the scope for a conciliation board. As explained above, the new hands seemed to afford an insuperable bar to any settlement by negotiation. Apart from that, the General Manager was not prepared to negotiate. He had gone to extreme and even extravagant lengths in the way of concessions to prevent the strike; he had nothing more to offer, even if he had been prepared to treat. Labour was forthcoming to meet the present requirements of the company, he was satisfied with the position and had given his word to his new men. The men's leaders did indeed suggest to the Commissioner that the new hands had no claim to consideration; that they must have known that their job was temporary and they ought to be discharged; if that was thought unfair, then the company should take back everybody and carry the extra staff until it was absorbed in the ordinary turn-over of labour, or in the last event the company should compensate the new hands for a breach of contract with them. Their idea of intervention was that Government should bring pressure on the company to adopt one or the other of these solutions; but the issues afforded no scope for the work

of a conciliation board. For a conciliation board to consider whether the new hands should be discharged or carried as surplus was clearly useless. It could not act as an arbitrator or mediator but could only plead with the company for action which would either be a breach of faith or unreasoning generosity with their shareholders' money, and in any case such a request would certainly have been met by a refusal. The other alternative was a court of enquiry. For the reasons already given it is clear that the court of enquiry, while it could review events and assign responsibility could not suggest, much less enforce, a solution of the deadlock. It remained to consider whether a judicial investigation and pronouncement upon the position, even if it could not effect a remedy, might yet serve a useful purpose. That is a point on which there is room for difference of opinion, but an important point is that neither party wanted it. The General Manager was prepared to face any enquiry, but thought that no practical benefit could result from it, and that it was waste of time. The men's leaders were definitely opposed to it, and hardly attempted to conceal their recognition of the fact that their case was not one to stant impartial investigation. Indeed their only constructive suggestion was that the Commissioner should use his personal influence with the Manager to persuade him to discharge his new hands. The Commissioner's conclusions were that a conciliation board would be quite useless; while as regards a court of enquiry, the men's leaders, the only party to the dispute that wanted Government intervention, were strongly opposed to intervention in the only form in which intervention was possible, and there seemed no sufficient reason for thrusting it upon them against their will. Government accepted the views of the Commissioner and informed the parties to the dispute of their decision that they could not usefully intervene in the matter.

12. After the refusal of Government to intervene, the number of men in the works increased rapidly. By the end of June the company had its full staff in numbers and thereafter proceeded to take in a few men in excess of its standard labour force. The men learnt their work quickly; the majority were not without experience and mechanical skill; and very soon production also began to approach the pre-strike standard, and indeed has since surpassed it. The General Manager had practically reconstructed his works. The actual figures at the end of July were 2,416 new hands and 752 old hands while production was rising towards the pre-strike standard. Work, however, was carried on under difficulties. Picketing was intense and the company recruited a body of Pathans as escorts for their workers and as counter-pickers. Moreover the company had to provide temporary tin-sheds to house their men since the strikers were in actual occupation of most of their quarters or had gone away from the place and left their rooms locked up. They were also feeding a large number of men in the works so that these could avoid the necessity of passing backwards and forwards through the pickets. Outsiders began to take a hand, and no doubt the refusal of Government to intervene induced the local leaders to look outside for assistance. The Workers and Peasants Party, founded by Philip Spratt, sent Messrs. Godbole and S. N. Chakravarti, and these not only introduced a communistic element into the dispute, but the former by precept and example intensified the picketing, and in particular encouraged picketing in the *bastis* and the practice of besetting and besieging the houses of workers. Part of the area was closed to picketing under Section 144 C.P.C., on account of outbreaks of violence. The Swaraj Party was responsible for sending up speakers like Messrs. Jawahir Lal Nehru, Gurudit Singh and Swami Biswanand. Under their influence the economic aspect of the strike became obscured and the racial and political prejudices of the audience at the meetings were freely exploited. Mr. S. C. Bose himself visited the place; he had been very annoyed with Messrs. Tatas for their recognition of Homi, and threatened to cause sympathetic strikes in Tatas and the Burma Oil Company and elsewhere. Mr. Giri also spent much time in Jamshedpur working earnestly to find some way out of the deadlock. At an earlier stage he had asked for an interview with the General Manager, but the latter was not willing to deal with him. The active strikers were not more than about 500 in number; many of the strikers had left for their homes to wait for better time, though the floods in Sylhet drove some of them back; money was being subscribed fairly freely for their support from various sources; though there was sufficient discomfort and shortage of money to produce discontent and bitterness, there was no acute distress. The position during this time was one of great anxiety for the Deputy Commissioner and police officers, but the details are of no particular interest. Sir Bhupendra Nath Mitra visited Jamshedpur on the 5th July; his visit was not directly in connection with the strike but he took the opportunity of meeting informally some of the persons chiefly concerned.

13. In the six weeks from the beginning of July till the middle of August the strike seemed to be dying a natural death. Conditions and production in the works were steadily improving. The company actually had more men than they needed. The figures in a report, dated the 20th August, show 1,012 old hands and 2,235 new

hands in the works. The difficult problem was the number of ex-employees still left in the company's quarters ; ejection suits had been instituted but there were the inevitable delays before the suits came on for hearing. Picketing was desultory and only maintained by the union rule that if a man did not picket he received no dole of rice. The ex-employees were also gradually drifting away to their homes, while from time to time some of them were being taken back by the company. Workers ceased to eat and sleep in the works and proceeded unmolested to their own homes. The company ceased to send lorries for their men who now walked to the works without escort. There was daily crowds of new comers, who came in some cases from places as far distant as the Punjab, at the works gate asking for work, and the officers of the company were besieged by old hands asking to come back. The company on the other hand had 500 men in excess of their needs and would have been glad to get rid of some. The outside leaders had mostly left the place. On the 19th August the Deputy Commissioner reported definitely that the strike as a strike might be regarded as at an end.

14. Then came the deliberate effort of the National Congress to revitalise the strike. Hints that the outside leaders were likely to return appeared in the strike reports from the 15th August, but were discredited as improbable. On that day Mr. S. C. Bose sent for Mr. Mitra, an ex-store clerk of Tinplate, and now President of the Union, to meet him in Calcutta. On the 16th August Mr. Mitra returned with Pandit Jawahir Lal Nehru. Khan Bahadur Abdul Rahim Chaudhuri of Sylhet and Pandit Nilkantha Das of Orissa came to Jamshedpur and attempted to bring their fellow countrymen out of the Tinplate Works. A leading article appeared in the *Searchlight* of the 18th August entitled "Golmuri strike-cause taken up by National Congress" which indicates the deliberate nature of the effort. On the 19th Mr. Godbole, of the Workers and Peasants Party, arrived and was followed the next day by Mr. S. C. Bose. They proceeded at once to reorganize the picketting, and on the afternoon of the 21st held a noisy demonstration outside the Works, which succeeded in reducing the old hands from over a thousand to 833. On the 21st also the Budge-Budge works went out on strike and put forward as one of their demands the settlement of the Golmuri strike on the terms desired by the Union. On the 22nd the strikers made a similar demonstration ; this culminated in a serious riot. On the 24th the number of men working was reduced by about 1,000, and the policy of annoyance of workers at night was inaugurated. On the 26th the total number working had fallen as low as 1,568. After that several of the outside leaders left and the number at work rapidly rose again and on the 29th had reached 2,388. Mr. S. C. Bose still remained, and on the night of the 30th/31st August came the attempt to destroy the high tension cables serving Tinplate. The night was still and the standards stood in spite of having been cut through completely ; but though the disaster was averted, the incident served to emphasize the great danger in the position. It is perhaps not a secret that the Tinplate Company at this time were seriously considering whether it would not be better to close down altogether rather than to continue to operate the plant in the existing conditions ; but the rapid recovery from Congress intervention induced them to think better of this. On the 29th August the Commissioner and the Deputy Commissioner had a long interview with Mr. S. C. Bose, which, however, failed to clear the position in any way.

15. Throughout this time a number of the ex-employees of the Company remained in occupation of the company's quarters, and thus constituted an element which kept trouble alive and furnished a ground for frequent renewal of the demand for Government intervention. Men were coming and going, and it was always difficult to form an estimate of the number, and in fact the numbers were always a subject of dispute, but their presence rendered it possible to say that there was still a strike of the Tinplate Works long after the works had a full staff and normal production again. Various persons from time to time took charge of this little band of ex-employees, and most prominent at the later stage was Professor Abdul Bari. On the 6th September a motion was moved in the Legislative Council to adjourn the House to consider the serious state of affairs at Golmuri, and the motion was carried by a narrow majority at a late hour. On the 24th September a resolution was moved in the Legislative Assembly recommending to the Government of India that the tariff on tinplate should be removed. This motion was also carried by a small majority.

16. The position in the months of October and November was this : The Tinplate Works had more than a full staff and production had not merely been restored to normal but had exceeded previous records. But outside the works there remained this little company of ex-employees, some of them still in the company's quarters. They were encouraged by a belief that on a result of the resolutions in the Legislative Council and Assembly, Government would at last intervene and make room for them in the works by removing the new hands. They kept up desultory picketting as a matter of form. But there was a constant process of attrition. Men were drifting

away to their homes, and from time to time were being taken back into the works. There cannot have been at the outside more than about 300 left though attempts to obtain accurate numbers failed. Meanwhile constant agitation and intrigue was carried on by various political leaders on their behalf. The result of the Congress party's intervention had been a bad set-back for that party which its leaders found difficult to tolerate. A deputation from the ex-employees went up to Delhi and tried to secure the help of Mr. Gandhi. Further, throughout this time the rivalry between the old Labour Association and the Federation continued and Mr. Homi and Mr. Bose, the respective leaders, were skirmishing against each other, and Tinplate affairs *came within the scope of their manœuvres*. *There is nothing to be gained by describing them even if there was complete information about them.* During this time the Deputy Commissioner met Mr. Giri and some of the men's leaders and endeavoured to persuade them to agree to a scheme for raising the money to repatriate the small body of ex-employees left in Jamshedpur in place of carrying on a hopeless agitation, but they were unwilling to fall in with it. This position stood thus at the end of November, 1929, at which time the writer of this note severed his connection with the district.

THE TATA IRON AND STEEL COMPANY, LIMITED.

I.—Recruitment.

(1) *Origin of Labour*.—The labour employed in the Tata Iron and Steel Company, Limited, Jamshedpur, hails from every Province in India and a small number from Nepal. They are of all castes, creeds and vocations.

(i) *Extent of Migration*.—Appendix "A" and Graphs 38432 and 38433 sent herewith will show the extent of migration by showing the numbers recruited or employed and discharged from the various districts, province by province. This has been taken for the year 1927 which was a fairly normal year. 1928 and 1929 cannot be cited as such owing to labour unrest and disturbances such as strikes, etc.

(ii) *Causes of particular Streams of Migration*.—It will be seen from the figures that the Province of Bihar and Orissa shows the greatest number of employments and discharges; *this is only natural as the works of the Steel Company are situated in this Province and the people being mostly agriculturists, have to supplement their livelihood by some members of the families coming to earn money and thus better their living conditions at home.*

In 1920 there was a big influx of some 7,000 people from the Central Provinces—this was due in the main to severe famine conditions prevailing in the native states comprising part of this Province.

(iii) *Changes in recent years*.—There is no marked change in recent years with the exception of an increase in the number of ex-Indian soldiers coming here and seeking employment and this has been noteworthy during the last two or three years only.

We are attaching statements showing the number of persons employed during one month and also one particular day (Appendix B. C. D. E. F and G). This will give an idea as to the extent of migration. The figures given are for all districts and for the heaviest month and heaviest day of employment.

2. *Contact with Villages*—(i) *Extent and frequency of return*.

(ii) *Extent of Permanent Labour Force*.—Percentage of skilled and unskilled workers, who work continuously throughout the year :—(a) about 75 per cent. of the skilled workers from this and contiguous districts work continuously throughout the year, and (b) about 50 per cent. of the unskilled labour from this and contiguous districts work continuously throughout the year.

Percentage of skilled and unskilled workers, who go back to their villages in non-contiguous districts once and once only during the year and then return to work in the factory or mine :—(a) Annually about 30 per cent. of the skilled labour go back to their homes in non-contiguous districts once only during the year and then return. (b) About 15 per cent. of the unskilled labour recruited from non-contiguous districts go back to their homes once during the year and then return to work.

We estimate that out of a total of 23,000 workers, about 2 per cent. skilled workers and about 12 per cent. unskilled workers go to their homes in non-contiguous districts more than once in the year and then return to their work.

3. *Methods of Recruitment*—(i) *Existing methods*.—An Employment Bureau is maintained by the company where skilled and unskilled workers are registered and employed (Appendix H).

The applicants for work assemble in a yard and daily requirements are selected by the officer-in-charge.

No outside recruiting is done in the literal sense of the word. In cases where men of special qualifications are required, the employment officer goes through the list of applications received by post and registered in his office. Failing to get a suitable man in this way, the post is advertised in three or four of the leading daily newspapers.

All employees are medically examined before they are admitted into service and are also vaccinated against small-pox.

(ii) *Possible improvement.*—As there is a large population here and the supply of labour in Jamshedpur is well in excess of the company's requirements, this system works very satisfactorily as the applicants for jobs incur no expense in connection with their registration and despatch to departments requiring the men and no charge is made by the company to defray the cost of maintenance of the Employment Bureau.

(iii) *Public employment agencies.*—(a) *Desirability of establishing.*

(b) *Possibility of practical schemes.*—Until labour as a whole is literate, it will not be possible to establish a public employment agency maintained by the Government. The need for such an agency is not felt at Jamshedpur. Our own employment bureau is able to satisfy our requirements. But in other industrial centres such as Bombay and Calcutta where there are several concerns engaged in a particular industry and also where there are various kinds of industries, a public employment agency would be of help to industry in the matter of recruitment.

4. *Extent and Effects of Disturbance of Family Life.*—We have no statistics on the subject of the percentage of workers whose homes are in non-contiguous districts and who leave their families in their home district, but estimate that approximately about 45 per cent. of our workers have left their families in non-contiguous districts ; the reason for this being due to a great extent to a shortage of housing accommodation.

The average period during which such workers remain at work before returning to their home district is very varying and may be anything from six months to three years on an average. This is an estimated figure as we have no statistics in the employment bureau.

7. *Unemployment.*—We have no remarks to make on any of the sub-divisions under this heading.

We find very little difficulty in obtaining all the labour we want from casual labour applying for employment at our employment bureau.

We do not advertise for labour except when the work to be performed is such as the ordinary casual labour is incompetent to do.

(iv) *Unemployment insurance.*—We do not think unemployment insurance can be applied to the particular branch of employment. It seems to be impossible to provide for it when it is extended to agricultural labour which seems impossible. Men are often both.

8. *Labour " Turnover "*—(i) *Average duration of employment.*—Two years.

(ii) *Extent of casual employment.*—·03 per cent.

(This figure is based on the total number of temporary employments in 1927 to the average monthly staff on the roll in 1927.)

(iii) *Absenteeism.*—Our labour turnover for the last 3 years of normal operation was on the down grade and with stability of labour conditions, it is anticipated that it will still be reduced. The figures are as follows :—1925, 36·6 per cent. ; 1926, 31·3 per cent. ; 1927, 24·1 per cent.

During the hot weather and the early monsoon we experience more difficulty than at any other time due to absenteeism, this corresponding with the cultivation season, also the marriage season amongst the Hindoos.

II.—Staff Organisation.

10. *Details of Organisation, Administrative and Departmental.*

11. *Selection of Managing Staff.*—The production of iron and steel by modern methods being comparatively recent in India, the managing staff which of necessity must have wide experience in modern iron and steel works practice and design, consists principally of men with a wide and varied experience acquired in the foremost iron and steel works in America and Europe.

The general manager is the head of the Steel Company's organisation at Jamshedpur. The operation of the plant is directly under the general superintendent, the head of each department of the works being directly responsible to the general superintendent. The heads of other departments outside the works such as the

town, accounts, collieries, ore mines, prospecting, etc., being directly under the general manager. The heads of departments are usually men with experience in similar departments of other steel works, recruited in America or Europe, but we have a number of Indian officers, some of whom have had training and experience in foreign steel plants, while others have obtained practically all their experience with the Steel Company at Jamshedpur.

As vacancies occur in these positions, promotions are made from other employees engaged in the department if a suitable man is available, otherwise it is necessary to recruit from abroad.

12. *Recruitment and Training of Supervisory Staff, Superior and Subordinate—*

(i) *Methods in force.*

(ii) *Facilities for training and promotion of workmen.*—In 1921 the Jamshedpur Technical Institute was started by the company, to train selected men in theory and practice for positions in the operating departments of the works. The course is for three years, half of which is spent in the works and half in the institute. A total of 137 students from all parts of India have entered the institute, of whom 50 are now under training and 63 are at present employed in the works.

We also employ a number of students who have graduated from the different engineering institutions in this country.

13. *Relations between staff and rank and file*—(i) *Relations generally.*—Present relations between the staff and workmen are, generally speaking, of a cordial nature. In the earlier days of the company it was not uncommon for foremen to abuse their authority and powers. In recent years this has largely disappeared and charges against the foremen of this nature are now seldom preferred.

Efforts have and are being made to educate all our foremen up to the responsibilities of their positions.

(iii) *Works committees—their constitution, extent and achievements.*

(iv) *Works councils and Industrial Councils.*—Shop Committees in all departments either have already or are now being formed. These Committees consist of four nominees of the local labour federation and three nominees of the company. The work of the committee is briefly described in Appendix I. These have been instituted recently.

In 1920 departmental welfare committees were organised, but the workmen were not interested in them and they did nothing.

Later on a labour advisory board consisting of employees representing the workmen and management was formed to discuss, consider and report on the grievances of employees brought to its notice. This board functioned about 18 months and did not meet after the strike of 1922.

In 1924 a conciliation committee was formed to consider mutual representations made to it by employers and employees of the Jamshedpur Steel Works with the late Mr. C. R. Das as president. This committee met on various occasions during the year 1924, but the need for it having ceased, it was discontinued.

We hope that the new shop committees will be of a more permanent nature, but their value will depend on the interest taken in them by the men.

14. *Time-keeping, Piecework, Contract and Attendance Registers*—(i) *How and by whom kept and checked.*

(ii) *How and by whom wages actually paid to workers.*—Time-keeping and attendance registers of labour in the direct employ of the company are kept by the time-keeping staff employed by the company and the wages are actually disbursed by the cash department.

Except in the case of supervisory, superior and clerical staff who draw their wages from the cashier's office, the workmen are actually paid in their departments by staff specially sent out for the purpose from the cash department.

The attendance of contract labour is maintained by the contractors and the Steel Company exercises no check upon it since we are concerned only with the amount of work performed at the contract rates.

There is practically no piecework here. Departmental bonuses are calculated on the out-turn of the departments, the production returns being submitted by each department.

15. *Contractors as Intermediaries*—(i) *Extent and character of work given on contract.*—There are two contractors employed by the Steel Company in the steel works and the work allotted to them consists principally of the following :—(a) Loading and unloading pig-iron and stacking same. (b) Unloading sand, clay, bricks, etc., and carrying same to cast house. (c) Handling coal and cinders for locomotives. (d) General cleaning. (e) Loading and unloading coal, coke, ashes, etc. (f) Loading and

unloading from and into stock various raw materials such as limestone, dolomite, ore, etc. (g) Erection of miscellaneous buildings and ordinary engineering work. (h) Unloading cinders on dumps and unloading and screening breeze.

The contractors employ approximately 4,000 workpeople.

(ii) *Extent of sub-contracting.*—One sub-contractor only is employed by one of our principal contractors who has a small force of 50 or 60 labour.

(iii) *Control exercised over working conditions.*—(a) Superintendents are responsible for the work carried out by the contractors in their respective departments and payment for work done is calculated at a tonnage and measurement rate. (b) The rules laid down in the Company's Safety Rules, the Factory Act and Workmen's Compensation Act are enforced. (c) Accidents are reportable by the various superintendents and are investigated by the company's safety inspector. (d) Wages are paid for time lost as a result of accidents.

(iv) *Effects.*—It has been found by experience, that it is more profitable and expeditious to employ contractors for the class of work enumerated in the foregoing table than if the company employed its own staff. The reasons for this are that this work concerns the loading and unloading of wagons principally, which can be done on a piecework basis and is most suitable in consequence for working on a contract system. Prior to 1924 this work was done by the company and as its completion depended mostly on the arrival of trains and the placing of wagons, it meant a considerable wastage of labour which was tied down by an eight hours shift and time-keeping system that rendered it in many cases idle half-a-day and more in consequence of any delay in the arrival and placing of wagons. This necessitated the employment of more labour than was actually necessary and the resultant additional employment of supervising staff together with the accompanying difficulty of provision for their living accommodation.

At present the contractors have quarters that accommodate approximately 600 labourers who form the nucleus of their staffs. These are readily available for work of an urgent nature on account of their proximity to the works. This does not imply the employment of this labour for a longer period than that prescribed by the Factory Act, as most of the work can be completed within five or six hours, which ordinarily constitutes a day's work. Such extra work, however, is paid for at the scheduled rates of overtime laid down.

III. Housing.

16. *Extent to which Housing is Provided*—(i) *By employers.*—A statement is attached of the Steel Company's quarters (Appendix J).

(iii) *By private landlords.*—About 320 houses have been built for letting out by private individuals on the Steel Company's land.

These are mostly leased to Steel Company's workmen, but not all.

(iv) *By workers themselves.*—A statement is attached (Appendix K)..

17. *Facilities for Acquisition of Land for Workers' Houses.*—Replied under "Welfare" as to facilities provided (vide (34)).

18. *Nature of Accommodation Provided in each Class*—(i) *In relation to workers' demands.*

(ii) *In relation to best type from health point of view.*—It is by no means clear what information is required. The Steel Company has made a great point of studying the type of quarters best suited to the needs of its workers, and has embodied every practicable suggestion made by them that appeared valuable, at the same time has aimed at building as far as possible according to the latest and best rules for health.

(iii) *Provision made for lighting, conservancy and water supply.*—Replied under "Welfare" about lighting. Workers all desire private latrines and private water taps but they cannot all afford quarters containing them. Also there is not enough water to give individual taps throughout.

19. *Utilization by Workers of Accommodation Available.*—The company's quarters are all full and it will be some considerable time before we can supply accommodation for all our employees.

20. *Rent Rates in Various Classes.*—Rents are calculated as near as possible at 5 per cent. on the capital cost. The rents of the various types are given in Appendix J.

21. *Special Problems Arising in Connection with Various Classes of Housing*—e.g., *Sub-letting: Occupation of Employers' Houses by tenants in other employ.*—Owing to the fact that the Steel Company has not yet been able to provide enough accommodation directly or indirectly, there is a good deal of sub-letting. Also there is a tendency of those not yet allotted quarters to "jump" any that fall vacant. Sub-letting is controlled as far as possible to prevent overcrowding. "Jumping"

quarters is dealt with departmentally. Only 0.5 per cent. of the company's houses are let to tenants in other employ and of those some are employed by firms working directly for the steel company.

Eviction.—Discharged employees who do not give up their quarters are evicted through the Courts.

IV. Health.

23. *General Health Conditions of Workers*—(i) *Figures of mortality.*—Health conditions are fairly good. We have had no epidemic of cholera for a long time. There was an epidemic of smallpox in the beginning of 1926. We have had none since.

Malaria.—There were 771 cases in the year ending 31st December, 1928, against 914 and 803 in two previous years. These are cases in which the malaria parasite was detected under the microscope. It is probably that amongst the cases of pyrexia of uncertain origin a certain number was malaria. Not all the cases of malaria were indigenous.

Kala-Azar.—In the year ending 31st December, 1928, there were 63 cases against 64 and 20 in two previous years. None of the Kala-Azar cases were indigenous.

Tuberculosis.—There were 181 cases of tuberculosis of lung in the year ending 31st December, 1928, against 80 and 104 in two previous years.

Hook-worm.—In the year ending 31st December, 1928, there were 25 cases of hook-worm against 10 and 18 in two previous years.

Enteric Fever.—There were 61 cases in 1928 against 39 and 24 in two previous years.

Mortality.—155 in the year ending 31st December, 1928, against 177 and 177 in two previous years. The number of deaths mentioned above includes only those that occurred in our hospital and on works. This number is therefore not the total number of deaths in the whole of the Jamshedpur area.

(ii) *Birth-rate and infant mortality.*—There were 112 births in the year ending 31st December, 1928, against 55 and 34 in two previous years. These numbers include only the cases that occurred in the hospital or came under our direct notice. We have no record of infant mortality.

(iii) *Working conditions.*—Working conditions, both at home and at the works, are on the whole satisfactory. The standard of living of the workmen at Jamshedpur has considerably improved. There is still a good deal of ignorance as to sanitation and health requirements in quarters of the lower paid employees and in the Bastees. But on the whole, the health of the workpeople is certainly better than in other industrial towns, and this is probably due to the housing facilities, however inadequate, supplied by the company and to the care taken in town planning and avoiding insanitary overcrowding.

(iv) *Dietary.*—The food of the U. P. Hindus, Telugu Hindus and Mohammadans consists of the following articles:—Rice, wheat, pulse (dal), vegetables, meat, fish, etc., edible oil, ghee, tobacco, liquor.

The diet of the Bengalis of the artisan class and aboriginal coolies is also the same with the exception of wheat and ghee.

(v) Physique on the whole is good especially among the aboriginals.

(vi) The incidence of venereal disease in industrial cities is in our opinion above the average.

24. *Extent of Medical Facilities Provided*—(i) *By employers.*—The steel company maintains a hospital with 140 beds, 4 out-door dispensaries and 3 first-aid stations and an isolation hospital for infectious diseases having 52 beds. Two doctors are specially kept for the isolation hospital. Two ambulance cars are used for bringing injured and sick patients to the hospital. There are 24 doctors, 14 registered nurses, 3 probationer nurses on the staff besides compounders, dressers and ward boys, etc. All the employees are treated free whether in the hospital or at their quarters. For medical attendance on their families at their quarters a nominal fee is charged. The hospital is free to everybody, whether employees or not. No charge is made for the medicines supplied to employees or the public. The entire cost of the hospitals and dispensaries is borne by the Steel Company. The capital expenditure up to 31st March, 1929, has been Rs. 3.50 lacs, and the annual expenditure is now about 3 lacs a year.

(ii) *By government.*—There is a small government hospital and a district board dispensary in the neighbourhood.

(iii) *By other agencies.*—None.

(iv) *Provision for women doctors, trained mid-wives or dais.*—Those attending hospitals freely consult the male doctors. There is certainly scope for women doctors and trained mid-wives to visit the villages and help the residents whose ailments would be treated from the beginning. Provision of nurses at the company's hospital is given under 24.

(25). *Extent to which Medical facilities are Utilized*—(i) *Generally.*—The medical facilities are freely utilized by the public as will be evident from the number of cases treated. In the year ending 31st December, 1928, the number of new cases treated were 210,210 against 206,899 and 196,120 in two previous years. The hospital is nearly full at all times.

Not only the residents of Jamshedpur come here for treatment but people from distant places are brought by their friends and relations who are residents of Jamspepur. We estimate that at least 30 per cent. of the total cases are outsiders who have no connection with the company. The cost to the steel company of maintaining hospitals, dispensaries and medical facilities, since 1920 is nearly Rs. 23 lacs.

(ii) *By women.*—Medical facilities are also being utilized by women in increasing numbers. Of the total new cases treated in the year ending 31st December, 1928, there were 27,740 women against 23,582 and 24,397 in two previous years.

(26) *Sanitary Arrangements*—(i) *Latrines.*

(ii) *Drinking water.*—Filtered water is already put in reach of most of the employees, and is being extended as far as possible to the remainder.

A statement of latrines is attached (Appendix L). Where private privies are not attached to quarters as far as possible, one seat is provided for every twenty persons, in conveniently located public latrines. Permission is freely given to employees to erect pucca latrines in houses built by themselves.

(29) *Disease*—(i) *Prevalence of industrial diseases.*—In Jamshedpur this is very low indeed. We occasionally have to treat cases of asthma resulting from gas poisoning, etc., but these are not frequent.

(ii) *Prevalence of cholera, malaria, hook-worm and other tropical diseases.*—*Cholera.*—We do not now get epidemics of cholera but occasional cases are reported usually of returned pilgrims.

Malaria.—We have measures in hand for malaria control.

Hook-worm.—The prevalence here is low.

Other tropical diseases.—Kala-Azar : we have no indigenous cases, but sometimes we treat imported ones.

(31) *Maternity Benefits*—(i) *Extent and working of existing schemes (including allowances given before and after child-birth).*—It is too early yet to make any statement about the benefit of the scheme as the scheme was only introduced in January, 1929. The terms of the scheme are attached (Appendix M). In the Government of India Factory Act or Workmen's Compensation Act, no provision is made for maternity benefit.

The number of applications received for maternity benefit since the scheme was put into operation on 1st January, 1929, are :—

January, 1929	...	..	..	..	..	19
February, 1929	..	..	..	..	..	5
March, 1929	..	..	..	..	..	12
April, 1929	..	..	..	..	..	12
May, 1929	..	..	..	..	..	11
June, 1929	..	..	..	..	...	11
July, 1929	..	..	..	..	..	7
						—
						77
						—

V.—Welfare (other than Health and Housing, but including Education).

(32) *Extent of Welfare Work*—(i) *By employers.*—Jamshedpur in many respects is unique in India. What was a dense jungle a little more than twenty years ago is now a town of over a hundred thousand inhabitants and a great industrial area.

The Tata Iron and Steel Company, Limited, is not only an employer of labour but is also the landlord and provides municipal services. Its welfare activities, therefore, naturally are of a very much wider scope than those of normal employers. It has not only to look after the welfare of its employees but also does welfare work outside, which in the normal course would be done by the local municipality. All the welfare work, therefore, done in Jamshedpur with a very few exceptions is done in some way or other by the Steel Company.

(ii) *By other agencies.*—There are a few outside agencies also doing welfare work here, the chief among them being the Vivekananda Society, a branch of the Ramkrishna Mission, which is doing a good deal of useful missionary work, chiefly among the aboriginal population of the place. There are also a few local societies like the Women's Council, the Ladies' Sewing Circle and the Mahila Samity who make useful articles for the hospital and other deserving institutions and do a certain amount of visiting.

(33) *Employment of Welfare Officers and Workers.*—The Steel Company has a welfare officer with an office and staff to co-ordinate the various welfare activities that are carried on by the Steel Company. Practically every department of the town administration is in some sense or another a welfare department, the aim of the company being to provide a model town for its work-people.

(34) *Nature of other Welfare Activities.*—(a) *By employers.*

(b) *By other agencies.*

Building loans.—In view of the prevailing shortage of houses and with a view to encouraging employees to build their own houses, the Steel Company grants loans at three per cent. to its employees for building their own houses.

For kutchha houses three months wages are advanced without any bond and are repayable in twelve instalments.

For pucca or brick and tile-houses, loans are granted on the mortgage system, ordinarily fifteen months' salary limited by half the estimated cost of the building is advanced to employees on this system. This is recovered on easy instalments within a maximum period of five years. The maximum of two-thirds of the value of the house is being given in exceptional cases.

Total building loans given up to the 31st March, 1929, were Rs. 2,02,967.

Water supply.—The town has an up-to-date Paterson filter plant which has a capacity of four million gallons of good filtered water per day.

The system is designed for delivery through six service reservoirs. Of these, only three, two in a two-storied tower at the centre of the town, and one on ground level at Kadma, have yet been built. The construction of another water tower has been started in "L" Town. The rest of the supply is still direct from the mains as money has not yet been available to complete the scheme.

The total cost of equipping and running these filters from 1920 is Rs. 26,77,786.

There are also sand filters inside the works which formerly supplied both the town and the works and are now exclusively used for the works.

Drainage.—The drainage of the town has been very carefully planned and two very interesting sewage disposal plants—one an activated sludge and one a simplex sewage disposal plant—have given very excellent results in sewage disposal.

The total cost of sanitary works in the town from 1920 has been Rs. 36,49,725.

Public lighting.—At present all the bungalows in Northern Town are equipped with electric lights and fans, and a few bungalows in Southern Town and Burma Mines. This is being extended every year.

Many of the streets in Northern Town and a few in Southern Town are also lit by electricity. This is also being extended and it is hoped, in a few years, to have a complete system of street and road lighting in the town.

The total cost of town lighting since 1920 has been Rs. 3,86,193.

Roads.—There are at present 30 miles of metalled roads and 53 miles of unmetalled roads. The cost of making and maintaining the roads has been Rs. 12,21,173.

Safety and first-aid.—A regular Safety First campaign for the prevention of accidents has been carried on for some years in the Steel Works. There is a general Safety Committee appointed from officials in the works. They supervise the working of the safety department and also investigate cases of very serious or fatal accidents. Two well-equipped first-aid hospitals are provided in the steel works. Doctors are in attendance at these stations for 24 hours of the day. Each department has got one or more boxes with the necessary requisites for immediate first-aid treatment and motor ambulances are provided. Classes have also been held in first-aid when complete courses of lectures have been given by one of the senior medical officers and after proper examination certificates have also been awarded.

Sanitation.—A large staff is maintained for sanitation of the town under a qualified health officer. They look to the sanitation of the town, bazaars, etc., They are also responsible for quick segregation of cases suspected of epidemic diseases. The health officer also passes the meat and fish which are put up for sale in the markets and shops and in collaboration with the bazaar masters is also responsible for seeing that no article of food unfit for human consumption is being sold.

Practically no charge for these services is levied from our workmen and the rent of the houses is considerably less than the economic rent. We consider this to be the most important and most fruitful form of welfare work.

Libraries.—Provision for reading rooms and libraries is as follows :—(i) Two reading rooms with libraries at the Main Institute, and at Branch No. 1 where usual newspapers, journals and periodicals are available for reading. (ii) Free reading rooms of Vivekananda Society, where about 20 English and vernacular newspapers and periodicals are available for the public. (iii) Reading room at the Indian Association. (iv) English and miscellaneous library in the Mrs. Perin Memorial Boys' High School. (v) Steel Company's technical library, containing books, journals and periodicals on all the different subjects and stages of iron and steel manufacture and its allied processes. (vi) Technical library in the Jamshedpur Technical Institute, where scientific journals and periodicals are also available. (vii) Fourteen public libraries.

Markets and bazaars.—There are five markets in this place, the two main ones being Bistapur and Sakchi. Sunday is the market day and people from the surrounding country up to a distance 25 to 30 miles bring in their produce for sale. The quality of food-stuffs sold in the markets is inspected by the bazaar master and the health officer while the former also checks weights and measures. Since 1920 Rs. 4,11,936 has been spent for the improvement of the bazaars in various ways.

Other shopping facilities.—Besides the markets, certain good areas have been allotted as shopping centre where big merchants take the ground on long lease and build their own shops. The outlying bustees from where the existing markets are not easily accessible also have shop areas chiefly for food-stuffs.

Co-operative credit societies.—With a view to promoting thrift among the workmen and preventing them from falling into the clutches of the money-lenders, the Steel Company encourages the growth of co-operative credit societies. There are at present 22 co-operative credit societies with a total share capital of Rs. 3,25,055. Instalments of loans given by the societies to their members are collected by the accounts department of the Steel Company through the men's salary and handed over to the society concerned. These collections amount to about Rs. 40,000 per month. Besides these societies there are two societies in the Tinplate Company's area. With a view to co-ordinating the activities of the various societies and to better supervising their working the formation of a co-operative central bank is now under consideration and the formal meeting for its inauguration is to be held at the end of this month.

Co-operative stores.—With a view to bringing down the cost of living by a reduction of prices, especially of normal food-stuffs, an effort is being made to start a central co-operative store with branches wherever necessary. The Tata Iron and Steel Company have offered to assist the stores provided a capital of Rs. 50,000 is raised of which Rs. 25,000 is subscribed in cash by the public.

Works Hotels.—With a view to providing good food at a cheap price, the company runs eight hotels, two each for Hindus, Mahommedans, Punjabis and Bengalis, inside the works. In addition, there are four stalls where gram, peas, groundnuts, etc., for the poorest class of coolies can be obtained. The very best of materials is used and as the hotels do not work for a profit beyond what is necessary for covering their working expenses, and sometimes at a loss, good food at reasonable prices is always available. These hotels are periodically inspected by the medical officer, the welfare officer and by other officials. About five to six thousand people of all classes use these hotels every day.

Dairy farm.—The dairy farm has about 225 animals including milking cows and buffaloes, bullocks, bulls, young stock and calves. The average milk produced at the farm is about 600 lbs. per day, with an average of about 11 lbs. per milking animal per day. The farm also produces butter, cream and ghee for sale. The more important monthly staff of milkers have better class of company's quarters, rent free, to enable them to live always near the cattle. They along with the milk delivery men are provided with uniform liveries to put on while on work.

The farm has an extensive acreage of land under cultivation, a part of which is under sewage irrigation. The Farm grows crops of Jowar and Bajri for fodder for farm cattle, main crops of paddy for grain and straw in the monsoon, and oat crops for green feeding as winter crops. Besides it has a small acreage of sugar-cane, fodder grasses, lucern and vegetables.

The farm also manages and runs the four District Board Cattle Pounds.

At the present time the farm grows about 2,000 maunds of paddy per year which is thrashed, hauled and polished by machine. It is proposed to sell the farm grown rice at a cheap rate through a farm depot at the Bistapur market as soon as the rice is ready for sale.

The sugar-cane and vegetables are sold at the works entrance gate and in the town at a cheap rate to the public.

The farm, as said above, produces about 600 lbs. of milk per day which is distributed as under:—About 40 per cent. is consumed by the company itself in its main hospital and works hotels, institute, etc. 16 per cent. of it is consumed by covenanted families in the northern town and 44 per cent. by the Indian families in northern and southern towns.

The farm has a system for butter-fat testing and record is kept of all the milk that passes out of the farm dairy. Similar tests are occasionally made for the fat contents of milk collected from the customers as supplied by the local Goalas and in every case the samples tested are found adulterated with water.

There is also a Government-aided Veterinary hospital under a trained veterinary surgeon where the animals can be treated. Up to the present, the company has spent Rs. 10,303 on this hospital.

The farm is used for sewage disposal and this is the chief reason for its maintenance.

Picnics.—With a view to bringing about a closer contact between the workmen and the works supervisory staff, picnics were held by various departments. The company sanctioned eight annas per head to help towards the cost of the prizes and refreshments for these picnics. A sum of Rs. 9,784 has been paid for the picnics already held this year.

Entertainments.—The main institute in the northern town which has a dance hall, well-equipped library, 3 billiard tables, tennis courts and stores attached to it, has also a branch institute in "G" town for the benefit of the company's employees living in that part of the town. There is an officers' club and the Indian Association which were both helped in the initial stages by the company and are now self-supporting.

There is also the Milancee, a dramatic club, built by private subscriptions and helped in certain matters by the Steel Company. There are also a number of smaller social clubs, i.e., Chhota Nagpur Regimental club, Bengal club, Madrasi Sammelani and Jamshedpur Association, etc. There is also the Jamshedpur Athletic club which was started on a small way and concentrates on Athletics and Physical culture.

Three cinema shows are held per week at the institute and eight at the Milancee. Dramatic performances are also held at the Milancee, Jamshedpur Association, and occasionally at the institute. All these clubs also have frequent social functions for their members.

With a view to providing some entertainment for the poorest classes of workmen, especially among the out-lying bastees, the Steel Company gives free cinema shows four times a week in different bastees. Rs. 15,000 has been sanctioned for these shows for this year. In the month of June over 38,000 people witnessed these free shows.

Sports.—All sport in Jamshedpur is co-ordinated and run by the Jamshedpur Sporting Association, a body nominated by the General Manager from the public of this place. There are two main playgrounds in northern town and two less frequently used in "L" and "S" towns respectively. The C.N. Regimental club have also made a football ground in front of their club. There is a challenge cup for cricket, 5 cups for tennis, 6 cups for football, 3 cups for hockey and 4 cups for golf, to be competed for every year. Besides these, bi-annual athletic sports are held among the various departments of the Steel Company and an annual sports meeting for the whole town.

Wrestling is also encouraged and wrestling tournaments are held in the cold weather when a number of well-known wrestlers from outside take part.

A very good ground, which is now being filled in, will be available in a few year's time and has been ear-marked for the schools.

Provident fund.—From 1920, the Steel Company has established a Provident Fund for the uncovenanted employees drawing Rs. 15 a month and over or an equivalent daily rate. The number of members on the 30th June, 1929, was 13,540.

The total loans advanced to the members from the Provident Fund comes to between thirty and forty thousand rupees per month.

Gratuity.—Gratuities have been given in individual cases for men who have resigned after long service with the company, and to the dependants of employees who have died after serving the company for long periods.

Free supply of boots, etc., for the workmen.—Men engaged in hot jobs where they are liable to get burns are supplied with boots free of cost by the company. They are also supplied with hand-leathers, aprons, gloves and eye-preservers wherever necessary.

Filters.—Drinking water for the west plant is filtered at the Sand Filters inside the works. The supply for the east plant is not filtered. Therefore, for the purpose of drinking, the company has installed Jewel Filters for purifying the water.

Free ice and soda.—The company has got its own ice and soda plant and provides free ice and soda to workmen on duty. It is also proposed to put in water coolers so as to have a supply of cool drinking water for the workmen. A demonstration machine has been installed and the results are being watched. If successful, it is hoped to have cooling machines in most of the Departments by the next hot weather. A sum of Rs. 7,84,891 has been spent in equipping and running the ice and soda plant since 1923.

Women's Rest House.—A women's rest house has been provided at the Coke ovens where women employees can have their food and wash and change their clothes. There is a Matron and two assistants-in-charge. Towels, soap, etc., are provided free. A number of women also leave their babies here while on duty. Thirteen to fourteen thousand women use this rest house per month.

Men's wash house.—A men's wash house has been sanctioned and is being put up at the Coke Ovens. This will enable the men who have been working in the coal dust to wash and get themselves cleaned up immediately after going off duty.

(34) *Nature of other Welfare Activities*—(b) *By other agencies.*—The Vivekananda Society, a branch of the Ramkrishna Mission, is doing very useful work chiefly among the aboriginal population. They have 4 free schools, a library, reading-room and students home. They also do very useful work in times of distress by floods, epidemics, etc.

Women's council.—The Jamshedpur Branch of the Bihar and Orissa Council of Women has recently been started for welfare work in the town in general.

Sewing circle.—Certain ladies of Jamshedpur started a weekly sewing circle where they make useful articles for the Hospital and other deserving institutions.

Mahila Samity.—This is a Society of Indian ladies who are doing very useful work here. They have weekly classes for sewing, needle work, etc., and also run a Sunday school and a literary section. They also make useful articles for the poor people and for deserving institutions.

Private Cinemas.—The Jamshedpur Cinemas give cheap cinema shows every day in "L" town and other private Cinema Companies are also starting in the near future.

In the Golmuri area there is the Golmuri Club which is the centre of the social life on that side of the town and also runs sports in that area. There are also two Indian Clubs on that side.

(36) *Provision of Educational Facilities by Employers*—(i) *For Adult workers.*—(a) Night school in the High School, teaching English and arithmetic; (b) 3 other night schools, teaching Hindi and arithmetic of primary standard; (c) night school of the Vivekananda Society; (d) Technical night school which has eight classes.

There are three classes in the lower or vernacular school and four in the upper school with a transition class, making eight altogether. A boy, who has read in a primary school, can enter the lower class of the technical school in which the teaching is in Hindi. At the end of three years if he passes the third year examination, he is granted a certificate from the vernacular or lower school in the subjects Arithmetic, English, Mensuration, Mechanical Drawing and Elementary Science. This is all he requires as a third grade apprentice, but if he cares to go on with his education and is recommended he is given a scholarship and can pass on into the transition class which is preparatory class for the upper school. He may require one or perhaps two years in this class and then passes into the 1st year of the upper school for which the ordinary entrance qualification is the matriculation. A few apprentices have succeeded in this way and have qualified for the higher grade of apprenticeship.

Students from the 3rd and 4th year of the senior school pass grade II of the City and Guilds Examination, London. Our school certificate is given on the 3rd year and 4th year examinations in Mathematics, Mechanical Drawing, Physics, Mechanics Graphic, Statics, Electricity, Mechanical Engineering and Electrical Engineering. This session the school numbers are as follows:—*Hindi school*, 81; *Preparatory class*, 18; *Senior school*, 52.

There is a staff of nine with a Superintendent, all of whom have had actual experience with a Steel Company.

(e) *Apprentice training.*—In July, 1927, the Steel Company re-organised their scheme for training apprentices for the maintenance departments. A works committee

appointed by the general manager was from that time made responsible for the training of all apprentices. Rules relating to pay and training were framed and are now in successful operation. A youth entering the Steel Company as an apprentice can now be certain of obtaining a systematic training over a period of five years in 4 departments.

The Scheme works in co-operation with the Jamshedpur Technical Night School.

(f) *Technical Institute*.—This is dealt with under Supervisory Staff No. 12.

(ii) *For half-time workers*.—There are no half-time workers in the Steel Company.

(iii) *For workers' children*.—Education on general lines is administered by a Schools Committee nominated by the company, and the schools are supervised through the Officers of this Committee. The school funds are mainly financed by the company and a part of it comes from the Government as ordinary grants-in-aid. At the present time the company's contribution is Rs. 81,700 per annum and the Government grant is Rs. 17,916 a year. About Rs. 13,000 is received from the students as fees. The fees paid by the employees for their children are at a reduced rate.

The schools are housed in pucca buildings. The old ones were given to the schools by the company. The new ones have been built with half cost from Government. During the past two years more than Rs. 1,50,000 have been spent on buildings out of which Rs. 75,000 were received from Government. Another building programme with an estimate of about Rs. 30,000 is in progress and it is hoped to complete this during the course of the current financial year. In addition to running its own schools the Committee gives grants-in-aid to many other schools, teaching primary standards. A statement giving details of all Schools' Committees, as well as aided ones, in which education on general lines is imparted is given below.

All the schools except the Technical Institute and the Technical Night School are under the same Management and Technical Supervision. The primary schools feed the middle schools and these in their turn feed the high school. At the present moment one high school has been sufficient for the town. When the number of pupils sent up by the M.E. schools will be too large for accommodation in one high school another high school will be opened.

Schools managed by the Company.				Number on the roll.	
(a)	Mrs. Keokee Monroe Perin Memorial High School.			289	Matric and School Leaving Certificate Standard.
	The Girls' Middle School			205	Middle English Standard.
	The Jamshedpur M.E. School			318	" " "
	The Sakchi M.E. School			270	" " "
	The Girls' U.P. School at Sakchi			108	Upper Primary Standard with English.
	13 Primary Schools—Boys			1,080	Primary Standard.
	Girls			150	
	4 Primary Night Schools—Boys			106	
	Girls			9	
(b)	<i>Schools aided by the Company :—</i>				
	Vivekananda Society's Schools—				
	3 Primary Schools			126	
	<i>Other Aided Schools :—</i>				
	4 Primary Schools—				
	Gujarati School—Boys			21	
	Girls			13	
	Gurumukhi School—Boys			17	
	Girls			27	
	Moulbera Primary School—Boys			50	
	Girls			29	
	Arya Vedic Primary School—Boys			28	
	Girls			12	
	1 Primary Night School—				
	Oriya Utkal Samiti Night School—Boys			31	
	Sakchi Mosque Makhtab				

(c)	<i>For Adults employed :—</i>	No. on the roll.
	The Commercial School teaching, Typewriting, Shorthand and Bookkeeping	44

(37) *Desirability and Possibility of Provision for Old Age and Premature Retirement*.—The Company's Provident Fund gives considerable protection to the employees against old age and premature retirement and is unusually generous.

There is a proposal of the Government of India to legislate that no income-tax be deducted from amounts contributed by employees to provident fund. This is a very necessary provision and should be introduced. Refunds of income-tax are made at present on premiums paid for life insurance. The lower paid employee therefore, should have the same privilege if he is unable to have any other insurance besides his provident fund. With the increase in the number of insurance companies in India and the propaganda carried on by them, men earning moderate salaries are going in for insurance. If insurance companies carried on propaganda on these lines it would benefit both the companies and the workers.

Pension fund.—A pension scheme has already been considered and financial provision has already been made. No definite rules have yet been framed.

VII.—Safety.

44. *Incidence of Accidents in Factories, Mines, Railways and Docks.*—We attach herewith figures showing the incidence of accidents in these works during the years 1926 and 1927. (We have not sent 1928, as this was a period of abnormal condition, due to labour disturbances.)

45. *Causes.*—All accidents occurring in these works are investigated and are classified into five groups. We give below a classification of the accidents which occurred during the years 1926 and 1927 :—

Classification.		Accidents during 1926.	Accidents during 1927.
Class 1.	Misadventure	1,268	1,054
Class 2.	Due primarily to injured person's own action, omission, negligence or fault.	341	402
Class 3.	Due primarily to another person's action, omission, negligence or fault.	81	63
Class 4.	Due primarily to neglect of the Management to take the prescribed or reasonable steps to ensure safety.	—	—
Class 5.	Obscure or not assignable to any of the other causes.	—	1
Unclassed		—	15
Total		1,690	1,535

N.B.—This statement does not include accidents to Contractors' labour and other "outside factory" accidents, etc.

49. We have nothing to add other than to record our appreciation of the assistance we have received from the Chief Inspector of Factories during his visit to and inspection of the works.

VIII.—Workmen's Compensation.

51. *Workmen's Compensation Act*—(i) *Extent of use.*—Our rules are as a rule more generous than the Act but we think more experience of it is required before any further changes are brought into the Act or it is extended to other occupations.

(ii) *Comparison with extent of possible Claims.*—The total amount paid in respect of accidents in the plant is as follows:—1926, Rs. 58,266; 1927, Rs. 52,418; 1928, Rs. 78,503.

N.B.—The increase in 1928 is due to the fact that, following the labour disturbances of the year, a number of employees who were leaving the services of the company, applied for and obtained compensation for disablements sustained during the preceding years and that most of these payments were made in the last quarter of the year.

Figures showing the amount of compensation payable under the Workmen's Compensation Act, representing payment of the first 10 days of disablement during the last 3 years, as compared with actual payments :—

From April, 1927 to March, 1928.		From April, 1928 to March, 1929	
Amount payable under the Act.	Amount actually paid.	Amount payable under the Act.	Amount actually paid.
Total ..	5,517	35,119	4,443
			25,163

The difference between the amounts payable under the Workmen's Compensation Act and the amounts actually paid is mostly due to payments made in cases of temporary disablements. In cases of temporary disablements incapacitating employees only for ten days and under, nothing is payable according to the Act. In temporary disablements extending for more than ten days, only half-monthly payments have to be made, according to the Act, of Rs. 15 or a sum equal to one-fourth of the employees' monthly wages, whichever is less. Payments are made by us in cases of temporary disablements not on the above basis but at the full rate of the employee's salary till he is declared fit to go back to work again or till he is declared to have suffered some loss of earning capacity, in which case compensation according to the provisions of the Act is paid to him. The difference is also caused, though to a very trifling extent by a few cases in which no compensation would be payable under the Act according to Sub-section (b) of Section 3 (1), but in which compensation has been paid as a compassionate allowance to the dependants of the deceased.

The amounts paid as compensation on account of fatal accidents to persons who would not have been entitled to compensation under the Workmen's Compensation Act and the reasons which prevented the cases from coming under the Act are as follows :—

1926-27	..	..	..	..	..	Rs. 636 for 3 cases.
1927-28	..	..	..	..	..	„ 1,584 „ 6 „
1928-29	..	..	..	..	..	„ 748 „ 2 „

or a Total of Rs. 2,968 for 11 cases.

In all these cases the accident was due to one or other of the causes mentioned in Sub-section (b) of Section 3 (1) of the Act and no compensation, therefore, would have been payable under the Act in ordinary circumstances. But, as the company usually pays compensation to dependants of deceased employees in all fatal accidents, irrespective of the cause of the accidents, the company has paid compensation in these cases also.

(iii) *Effects on industry*.—As the figures indicate the payments made in respect of all accidents according to our Works Service Rules, and include a large number of cases in which nothing would have been payable at all according to the Workmen's Compensation Act, the extent of our actual payments to employees in connection with accidents will always be about five times that of possible claims under the Workmen's Compensation Act.

The provisions of the working of the Act do not appear to have affected the industry appreciably—one way or the other.

(v) *Desirability of Compulsory Insurance by Employers*.—We do not think this can or should be imposed unless it is managed by Government. In any case we consider it unnecessary.

IX.—Hours.

A.—Factories.

55. *Hours worked per Week and per Day*—(i) *Normal, i.e., as determined by custom or agreement*.—Our labour can be dealt with conveniently under three heads :—(a) Unskilled ; (b) semi-skilled and skilled ; (c) supervisory.

Generally speaking, Classes (a) and (b), numbering roundly 5,000 and 17,500 respectively, work 8 hours a day. In the case of “non-continuous process” departments, they work 6 days in the week, Sunday or a substituted day being an “off” day. In the “continuous process” departments these men work 7 days in one week and 6 days in the next alternately, as they are laid off work once a fortnight, according to the provisions of the Factory Act.

All the supervisory and clerical staff, numbering approximately 1,800, work from 48 to 52 hours per week according to the nature of their work.

(ii) *Actual, i.e., including overtime*.—The actual average number of hours (inclusive of overtime) worked in a week is about 51 to 52.

(iii) *Spread-over, i.e., relation between hours worked and hours during which worker is on call*.—Classes (a) and (b), with the exception of a negligible number, have no spread-over at all ; once they have finished their day's shift they are free and not on call at all.

The supervisory staff, however, are *liable* to be called upon for urgent work whenever there is any break-down or any other emergency which necessitates their presence though actually the number of men called up out of their normal hours of work is very small.

57. *Effect of 60 Hours' Restriction*—(i) *On workers*.—We believe the general effect of the 60 hours' restriction has been beneficial to the workmen. There has perhaps been a slight loss in earnings due to the application of the restriction inasmuch as overtime cannot be put in to the same extent, but against this there is less fatigue which results in better health and efficiency.

(ii) *On industry*.—Since the works started we have never worked over 60 hours.

58. *Effect of Daily Limit*.—This has generally had a beneficial effect on the workmen.

59. *Possibility of Reduction in Maxima*.—We do not advocate such a reduction.

60. *Intervals*—(i) *Existing practice*.—The existing practice is suitable both in relation to fatigue and workers' meal time. In the various continuous production departments, where men are employed on 8-hour shifts, there are no jobs requiring continuous work for which spare hands are not provided to relieve workmen so as to prevent fatigue, and while many of the men engaged in 8-hour shifts are employed on work in which the process is continuous the actual work itself is intermittent, and men in consequence get intervals for meals and rest. The general shift hours of the company which were formerly from 6 a.m. to 11.30 a.m. and 1.30 p.m. to 5 p.m. have been revised and the general shift hours reduced from 9 to 8 hours by commencing work at 7 a.m., leaving at 11.30 a.m., resuming at 1.30 p.m. until 5 p.m.

(ii) *Suitability of the law*.—In its relation to intervals of rest we would say that as far as the steel industry is concerned, there is no difficulty in meeting the requirements of the Act, for even in the continuous process departments, where men are employed on straight 8-hour shifts, the work is intermittent providing frequent intervals of rest, and in the non-continuous process departments men are generally employed on general shift where 2 hours' interval is given after 4½ hours' work.

(iv) *Number of holidays given*.—We are governed in this by the provisions of the Factory Act and exemption orders of the Local Government for non-continuous process departments, etc., and full use is being made of such exemptions.

X.—Special Questions relating to Women, Young Adults and Children.

A. Factories.

81. *Effect of 1922 Act on Employment*.—The passing of this Act made very little difference to the Steel Company in its relation to the employment of women, young adults and children. Prior to the passing of the Act, the Steel Company had eliminated the employment of all women at night time in the steel works at Jamshedpur and has not at any time encouraged the employment of children. Boys only are employed as messengers, being subsequently usually taken on in the works.

82. *Admission of Infants to Factories*.—No infants are admitted to the factory except under the Exemption Order which was granted by the Chief Inspector of Factories for Bihar and Orissa, which permits admission into the works of infants in arms being taken to and from a crèche.

83. *Suitability of Regulations for Women's Work*.—We have no comments to make. The female labour employed by the Steel Company are engaged in occupations in which there is practically no hazard, such as unloading or loading wagons, carrying bricks, sweeping, etc. Nevertheless, the Steel Company feels that the employment of women labour in a steel factory for any occupation is undesirable, and our idea is to gradually curtail this labour with the intention of ultimately eliminating it altogether within the factory limits.

84. *Suitability of Regulations affecting Children*—(i) *Hours and intervals*.

(ii) *Minimum and maximum ages*.—The question does not affect us, but we offer the following suggestion :—The age for children at present, according to the Act, is between 12 and 15. They are all half-timers and work not more than 6 hours for six days in a week and no night work.

Considering the early age at which children mature in this country the age of 12 should not be raised.

It is, however, difficult in this country to prove the age, and if some means could be devised by which a child of 10 is not passed off as 12 would be useful.

If children are not admitted to the factories by 12 years they will very probably be employed in harder work, and in worse and more unhealthy surroundings than those permitted by the Act.

Without compulsory education in all parts of the country, and even in all wards of one town it would be better not to raise the age above 12.

The maximum age may be increased above 15, as then youth is adolescent and required to attend night or vocational school, and the 6 hours of work in addition is all he should or she should do.

It would also be of immense help in improving the health of the women. It is no use raising the marriage age and making them work as women after 15.

86. *Work and Training of Young Adults : Facilities for Apprenticeship.*—We have a technical night school in which apprentices and young employees of the company are given instruction in the following subjects :—Arithmetic, algebra, geometry, trigonometry, mensuration, elementary science, English, physics, electrical engineering, mechanics, mechanical engineering and drawing.

87. *Extent of " Blind Alley " Employment (i.e., Extent to which Children are dismissed on reaching Full Age).*—We understand this to apply principally to office boys and the like. If this is so, we would say that all office boys as they grow up are absorbed in various parts of the works establishment. Some of them who attend the night school become sufficiently educated to assist in the office such as filing helpers, etc., others go into the works, and some become chaprasis, peons, messengers, etc.

XII.—Wages.

96. *Prevailing Rates of Wages (Time and Piece) and Average Earnings*—(i) *In industry.*—The average rate of wages paid per head per month to direct Indian employees during the period April, 1927, to March, 1928, was Rs. 32·9. In five working months during the period April, 1928, to March, 1929, this had increased to Rs. 37·4, and in April, 1929, it further increased to Rs. 42·3.

101. *Basis of Payment for Overtime and Sunday Work.*—Payment for overtime is calculated according to the provisions of the Factory Act.

102. *Method of Fixing Wages.*

103. *Extent of Standardisation.*

104. *Effect of Wage-changes on Labour Supply.*

There are standard rates fixed by a rates Committee for the various grades and classes of labour employed through the Steel Works. This rates committee is composed of certain of our departmental superintendents who are in close touch with the labour employed in the plant and with the nature of the work performed by the various grades of labour in each department. Standardisation is carried out as far as it can possibly be done in order to minimise complaints which were so frequently made that men when engaged are promised certain rates which they eventually find are somewhat less. Under the standardisation scheme whereby each job is rated, every employee understands exactly what his minimum and maximum rate will be in that grade and what he can expect when promoted from it to other grades. It also has the advantage of rating all men doing the same work so as to yield the same or about the same remuneration. In a plant of this size, employing approximately 20,000 workpeople, the necessity of this is at once apparent. There are occupations of a similar nature in the East Plant to that of the West Plant and as different Superintendents are in charge of each, we found it necessary, in order to avoid having different rates for the same class of work, to have the rates committee bring all rates for similar work into line irrespective of department in which employees were working.

104. *Effect of Wage-changes on the Labour Supply.*—We have never had any difficulty in securing all the labour we required. Wage-changes do not affect us as there have never been any changes in the rates paid by the Steel Company to its labour except to increase them.

105. *Minimum Wages—Advisability and possibility of statutory establishment.*—It is advisable to have a minimum wage legislation, on the basis of cost of living. The rate should be different according to Industries and Provinces.

106. *Deductions.*—(i) *Extent of fining.*—The amounts collected as fines from the employees for the last three years are :—1925–26, Rs. 10,854 ; 1926–27, Rs. 5,039 ; 1927–28, Rs. 334.

Fining as a form of punishment for delinquencies has practically been eliminated.

(ii) *Other deductions.*—We have attached a list of all heads of deductions (Appendix Q).

As for deductions on account of the company's dues, as for instance, house rent, dues to the company's dairy farm or hotel, etc., the consent of the employees is implied in their general conditions of service. For all deductions outside these two groups, recoveries are made only at the request, generally in writing, of the employees concerned.

(iii) *Utilisation of fines.*—The amounts collected as fines were being utilised for hospital fund, as the fines were to be devoted to some charitable purpose. As the amount has grown trifling and will be "nil" before long, the question of its utilisation will not arise at all, and, in any case, has no importance.

106. *Deductions*—(i) *Desirability of legislation.*—There appears to be no necessity for any such legislation as deductions from wages in respect of fines are hardly appreciable to our knowledge anywhere on this side of India and we do not think there is any abuse in this direction in any part of the country.

107. *Periods of Wage-payment (Day, Week or Month)*—(i) *Periods for which wages paid.*

(ii) *Periods elapsing before payment.*—In cases of weekly-paid coolies we make a weekly-payment, and this payment is made on every Saturday for the week ending for the previous Tuesday. The reason why we make the payment on Saturday is that Sunday is a general bazaar day and it is convenient to our employees to obtain their wages a little in advance of this day.

In cases of daily rated and monthly rated men, we pay wages to this staff beginning with the 5th of the month up to the 12th or not later than the 15th of each month in respect of the previous month's earnings. The delay is due to the innumerable deductions to be made such as rents, stores, provisions, etc.

(iv) *Treatment of unclaimed wages.*—Unclaimed wages are kept as liabilities for three years after which they are credited to Gratuity and Workmen's Pension Fund. No unclaimed wages are refused even after three years if claim is proved.

109. *Bonus and Profit Sharing Schemes.*—Please see copy of letter 3184 of 31st August, 1929, to the Bihar and Orissa Government (Appendix R).

110. *Annual or other Leave.*—Except in a few cases among the higher grades of the supervisory staff, leave is availed of as it becomes due and in many cases overdrawn.

As regards the query whether leave earned lapses at the end of the year if not taken, it does not lapse as it can be accumulated, the only limitation being that in the case of daily rated employees leave can be accumulated only up to a maximum of six weeks (due on three years' completed service) at a time. In actual practice, however, the restriction as above said very rarely comes into operation as the number of daily rated men who do not take leave at all till they accumulate their leave for more than three years at a stretch is negligible.

XIII.—Industrial Efficiency of Workers.

112. *Comparative changes in efficiency of Indian Workers in recent years.*—There has, in our estimation, been an increase in the efficiency of Indian workmen during recent years, but the labour turnover is still too great to state to what extent, with any degree of accuracy. In recent years the general unrest amongst labour has, we think, prevented the increase in efficiency we would otherwise have expected.

113. *Comparative efficiency of Indian and Foreign Workers.*—The Steel Company's experience is that it employs in relation to the output, a far greater number of employees than a similar works would in western countries. India is mainly an agricultural country and the workmen in the iron and steel industry do not have the experience or skill of the workmen in those countries where the industry has long been established. The climatic conditions operate to the disadvantage of the Indian workmen and the education, health, physique and standard of living generally are lower here than are to be found in the western countries. These adversely affect the local workers in judging his comparative efficiency with the westerner.

114. *Extent to which comparisons are affected by (i) Migration of workers.*—While this is not very considerable in view of the fact that the main population of India is agricultural, it does sometimes adversely affect the supply of skilled workmen.

Large numbers of workmen do leave their families at home with the consequence that they have to do much for themselves in the way of domestic duties which prevent them getting the rest they would if living in their own houses with their own families.

(ii) *Use of machinery.*—The increased usage of modern machinery has a tendency to decrease the number of employees but with an increase in industrial efficiency. The average Indian workman has yet a long way to go in the matter of making the best use of modern machinery in order to obtain the full advantage of labour saving which is one of the principal features of such machinery.

(iii) *Comparative efficiency of plant.*—The extensions to the steel works at Jamshedpur have been designed on up-to-date methods of production with a high efficiency factor. The major portion of the machinery being imported and spare parts not being available in this country, necessitates this company carrying a large stock of spares which would not ordinarily be carried by steel works in western countries who can get spare parts with much greater facility.

(v) *Physique.*—On the whole the Indian workman has not the standard of physique which is to be found in labour employed in steel works in the western countries. The work in and around the steel plant is of a strenuous nature and demands a physique which must be generally above the average.

(vi) *Health.*—The essential rules for good health are not so generally understood and conditions prevailing in the steel industry are totally different to those prevailing in the old village life.

(vii) *Education.*—This is admittedly one of the drawbacks from which Indian workmen suffer, but efforts are being made in Jamshedpur to provide more than the average educational facilities for children of the workmen.

(viii) *Standards of living.*—This is not very high, but as there are varying standards amongst different castes, it is difficult to offer any definite opinion or offer any suggestion of the manner in which the standard should be raised. There are features in which the standard of living could be practically raised for all, but we do not feel competent to deal with the details.

(ix) *Climate.*—The climate at Jamshedpur on the whole is good. Nevertheless there must of necessity be a loss of efficiency during the extremely hot weather months and during the monsoon when the heavy rain-fall creates conditions of personal discomfort.

115. *Effect on Production of—*

(iii) *Expenditure on health and sanitation.*—The steel company has been liberal in the provision of health and sanitation measures and the results undoubtedly are justified, but it is impossible to say exactly to what extent production has been affected.

(iv) *Housing.*—The housing at Jamshedpur is below requirements, but the steel company is endeavouring to correct this to the best of its financial capacity. We certainly believe that adequate housing for workmen would have a beneficial effect on production.

(v) *Alterations in methods of remuneration.*—We have no comments to make, except that we have endeavoured to introduce production bonus schemes with a view to increasing the outturn. So far these schemes have not produced as good results as we had expected, but nevertheless we believe that fixed rates plus a bonus on production is the best both for employers and workmen.

(vi) *Movements in wage levels.*—We have not noticed any increased production from the increased pay roll of the company.

(vii) *Legislative enactments.*—We believe factory legislation has generally improved working conditions which must ultimately increase the efficiency of the workmen.

(viii) *Dietary.*—We believe there is room for the education of workmen in this respect. Labour conditions in many occupations in a steel plant are such that they call for a dietary rather above than below the average.

(ix) *Alcohol and drugs.*—The evil effects of these are not more noticeable here than elsewhere.

(x) *Industrial fatigue.*—Many of the workmen here have been accustomed to agricultural occupations and in consequence, industrial fatigue is more noticeable in the steel works here than is found in countries where the industry has long been established. In course of time this condition will tend to become less visible.

116. *Possible methods of securing increased efficiency.*—In course of time the measures which the steel company has taken of establishing the technical institute,

technical night school apprenticeship systems, etc., should result in increasing the efficiency of the workmen. It is hoped that individual energy, technical skill and scientific knowledge will be promoted. The company's programme of providing additional housing and other amenities in the town, improving working conditions in the plant, extension in the use of up-to-date machinery, regard for the safety of its employees and welfare work, are all methods intended to secure increased efficiency of the workmen.

XIV.—Trade Combinations.

117. *Extent of Organization of*

(i) *Employers.*—The Metallurgical and Indian Mining Association are the organizations of employers in this particular industry. The Chambers of Commerce to which most employers belong sometimes take up questions relating to industry. The Metallurgical Association does not regularise wages. Their co-operation is only used in making representations to the Government on general principles affecting the industry.

(ii) *Employed.*—The existing organizations of employees are the Jamshedpur Labour Association and the Labour Federation. About 50 per cent. of the employees are members. The Trade Union Congress have an annual meeting where they discuss general questions affecting labour.

XVII.—Administration.

138. *Acquaintance of Work-people with Factory Legislation.*—The majority of the workmen being illiterate, are not acquainted with Factory Legislation to any great extent. Generally their acquaintance is limited to the fact that compensation is due under the Workmen's Compensation Act when they are injured in the plant and to the fact that legislation has imposed restriction on working hours and that under the Factory Act they must be given certain days of rest.

APPENDIX A.

Abstract of the Statement Showing the Origin of Labour Employed and Discharged in The Tata Iron and Steel Co., Ltd., during Twelve Months from January to December, 1927.

	Total No. Employed.	Total No. Discharged.
Bihar and Orissa	2,927	2,639
Bengal	560	534
United Provinces of Agra and Oudh	1,029	864
Central Provinces and Berar	1,001	933
Assam	63	85
Madras	374	306
Bombay	275	253
Punjab	485	413
Independent States	92	119
Native States	305	218
Rajputana	4	2
North-Western Frontier Province	147	111
Foreign Provinces	2	5
Foreign Countries	18	12
Burma	1	—
Grand Total	7,283	6,497

APPENDIX B.

Abstract of the Statement Showing the Number of Employments in the Month of May, 1927.

Bihar and Orissa	..	..	..	..	..	..	254
Bengal	..	..	..	..	..	..	71
United Provinces of Agra and Oudh	..	..	..	..	..	..	136
Central Provinces and Berar	..	..	..	..	..	..	124
Madras	..	..	..	..	..	..	49
Assam	..	..	..	..	..	..	12
Bombay	..	..	..	..	..	..	29
Punjab	..	..	..	..	..	..	61
Native States	..	..	..	..	..	..	34
Independent States	..	..	..	..	..	..	6
North-Western Frontier Province	..	..	..	..	..	..	19
Foreign	..	..	..	..	..	..	1
Grand Total	..	..	..	..	..	..	796

APPENDIX C.

Abstract of the Statement Showing the Number of Women Workers Employed in One Month.

Bihar and Orissa	..	..	..	..	..	..	90
Central Provinces and Berar	..	..	..	..	..	..	160
Native States	..	..	..	..	..	..	46
Grand Total	..	..	..	..	..	..	296

APPENDIX D.

Statement Showing the Number of Children (Over Twelve Years of Age) Employed During One Month.

Central Provinces and Berar	..	..	..	..	..	4
Madras	..	..	..	..	..	1
Grand Total	..	..	..	..	..	5

APPENDIX E.

Abstract of the Statement Showing the Number of Women Workers Employed in One Day.

Bihar and Orissa	..	..	..	..	..	22
Central Provinces and Berar	..	..	..	..	..	28
Native States	..	..	..	..	..	20
Grand Total	..	..	..	..	..	70

APPENDIX F.

Abstract of the Statement Showing the Number of Employments in One Day.

Bihar and Orissa	..	..	..	..	..	20
Bengal	..	..	..	..	..	2
United Provinces of Agra and Oudh	..	..	..	..	..	11
Central Provinces and Berar	..	..	..	..	..	6
Madras	..	..	..	..	..	3
Bombay	..	..	..	..	..	1
Assam	..	..	..	..	..	1
Punjab	..	..	..	..	..	9
Native States	..	..	..	..	..	4
Independent States	..	..	..	..	..	1
North-Western Frontier Provinces	..	..	..	..	..	3
Grand Total	..	..	..	..	..	61

APPENDIX G. (abridged.)

Abstract Showing Total Number of Monthly Paid Employees who Worked on 5-7-29 with Their Native Provinces Shown against Their Numbers (Agrico not included)

Assam	..	..	..	..	..	275
Bombay	..	..	..	..	..	319
Bihar and and Orissa	..	..	..	..	..	5,271
Bengal	..	..	..	..	..	2,076
Central Provinces	..	..	..	..	..	1,327
Madras	..	..	..	..	..	839
Native States	..	..	..	..	..	297
Independent States and Foreign	..	..	..	..	..	221
North-Western Frontier Provinces	..	..	..	..	..	181
Punjab	..	..	..	..	..	1,301
United Provinces of Agra and Oudh	..	..	..	..	..	3,810
Grand Total	..	..	..	..	..	15,917

APPENDIX H.

Statement Showing the Number of Applications Received During the Year 1927, Classified Under Different Trades.

Apprentice	..	..	..	..	..	137
Clerk	..	..	..	..	..	362
Crane Driver	..	..	..	..	..	69
Coupling Porter	..	..	..	..	..	272
Cleaner	..	..	..	..	..	87
Fitter	..	..	..	..	..	480
Filer	..	..	..	..	..	50
General Job	..	..	..	..	..	648
Grinder	..	..	..	..	..	55
Helper	..	..	..	..	..	1,318
Hot Iron Breaker	..	..	..	..	..	114
Khalasi	..	..	..	..	..	1,323
Mason	..	..	..	..	..	127
Moulding Boy	..	..	..	..	..	118
Pig Iron Breaker	..	..	..	..	..	96
Pointsman	..	..	..	..	..	52
Painter	..	..	..	..	..	50
Rigger	..	..	..	..	..	137
Stocker	..	..	..	..	..	828
Sepoy	..	..	..	..	..	351
Spare Gang	..	..	..	..	..	938
Sweeper	..	..	..	..	..	171
Turner	..	..	..	..	..	74
Other Trades	..	..	..	..	..	1,691
Grand Total	..	..	..	..	..	9,548

APPENDIX I.

Shop Committees.

These committees consider complaints made by workmen concerning service conditions and petty grievances. They report the findings of the committee to the general superintendent.

If the shop committee's findings support the decision of the departmental superintendent the matter ends there. If the shop committee decide in favour of the applicant against the departmental superintendent's decision the shop committee first submit their findings to the departmental superintendent giving the reasons. If the departmental superintendent then sees the case in a different light and revises his judgment the matter is settled, but if the departmental superintendent still considers his original decision is correct the man can then put his case to Board "A," composed of two representatives of the management of the steel company and two representatives from the managing committee of the Labour Federation.

When Board "A" decide in favour of the applicant agreeing with the shop committee's decision it is communicated to the general superintendent and if he agrees with it, will issue orders to the departmental superintendent accordingly. If he does not agree there shall lie an appeal to a Board composed of the general manager and the president of the Labour Federation (Board "B").

APPENDIX J. (abridged).

Serial No.	Type of Building.	No. of Blocks.	No. of Units.	Monthly Rent per unit.	Accommodation.
28	Rahim's Hut ..	1	1	Rs. a. p. 6 8 0	2 rooms and back verandah.
36	H 2	94	188	7 8 0	1 sit, 1 bed, 1 store, front v., 1 k., courtyard, L. and W. inside.
37	H 3	6	24	7 8 0	1 sit, 1 bed, 1 store, 1 k., courtyard, L. and W. inside.
38	H 4	12	48	8 0 0	As H 2.
43	L	420	840	9 0 0	1 sit, 1 bed, front v., 1 k., courtyard, L. and W. outside.
44	M	2	40	1 4 0	1 room.
45	N	12	240	1 0 0	1 room.
46	N 1	138	552	3 2 0	1 bed, 1 k., 1 v., courtyard.
47	M 2	78	312	4 0 0	1 bed, 1 store, 1 k., courtyard, L. inside.
48	N 2	50	200	3 0 0	1 bed, 1 k., 1 v., courtyard.
49	RM	6	120	1 6 0	1 room.
50	RN	16	320	1 2 0	1 room.
51	RN 1	117	468	2 4 0	1 bed, 1 v., courtyard.
52	1/2 RN	2	20	1 2 0	1 room.
53	Chawls	16	96	4 0 0	1 sit, 1 bed, front v., 1 k.
56	Grain Store Staff Quarters.	4	24	2 2 0	1 room, 1 k., front v.
62	S	48	192	5 0 0	1 sit, 1 bed, 1 k., 1 v., courtyard L. inside.
63	L 2	1	4	5 0 0	As S but with f. and b. verandah.
65	L 3	2	8	3 4 0	As L 2.
66	H	2	8	6 8 0	1 sit, 1 bed, 1 store, f. and b. verandah, 1 k., courtyard, L. inside.
67	L	2	8	6 8 0	1 sit, 1 bed, front v., 1 k., courtyard, L. inside.
68	Store buildings	1	10	4 0 0	1 room.
73	M 2	5	20	4 4 0	1 bed, 1 store, k. and courtyard.
74	RN	12	48	2 8 0	1 room.
76	C	120	233	2 8 0	1 room and verandah.
Total Units rented at less than Rs. 10-0-0			4,024		
Units at higher rentals.			797		
Total Units ..			4,821		

APPENDIX K.

Quarters built by Employees.

The figures are as follows (corrected up to June 1929) :—

1. (a) Kutchra houses, including some brick and tile houses built by employees under the building loan system	1,570
(b) Pucca houses built by employees on the same system in the town residential area	40
Total	1,610
2. Kutchra, including brick and tile houses, built by employees in the Bastees at their own cost	5,660
Grand Total	7,270

In about 50 per cent. of these houses, the accommodation is sufficient for three families and they are very largely occupied by sub-tenants who in most cases are employees. There is some over-crowding, no doubt, as in Kasidih, but it is safe to estimate that these 7,270 houses are without over-crowding, accommodating 12,000 employees.

Employees have also built their own huts and houses in Jugselai and in Bastees outside the town, as in Baghbera, Hargargutu, Kitadih and other villages to the south of Jugselai, and in Adityapur, Dindly and other villages in the Seraikela State. The number of houses built by employees in Bastees outside our area can be roughly put down at 1,500.

APPENDIX L (abridged).

Number of Latrines provided up to March 1929.

	Latrine Seats		European Seats.	Urinals.
	Male.	Female.		
Within the works	119	55	43	233
In the town	510	297	1	16

APPENDIX M.

Maternity Benefit.

1. From January 1st, 1929, the company will pay as maternity benefit to weekly paid female employees of the company the equivalent of six weeks' wages following confinement providing that :—(a) The woman shall have been in the continuous employ of the company for not less than 12 months prior to the date of confinement. (b) The woman undertakes during the period of six weeks following confinement not to do any work outside her own home. (c) That notification of birth is made to the company's main hospital within three days of its occurrence.

2. Employees who wish to take advantage of this benefit must register their claim at the Employment Bureau. The Employment Bureau will arrange for the woman to be examined at the hospital, which will state the probable date of birth. If the claim is in order the Employment Bureau will issue a leave of absence permit for six weeks and payment will then be made of three weeks' wages.

3. On receipt of notification of birth, the Chief Medical Officer will arrange for verification, noting the date on the certificate issued by him.

4. The certificate will be handed in at the Employment Bureau, which will make the necessary endorsement on it after which payment of the other three weeks' wages will be made.

5. Before resuming work the woman must report at the Employment Bureau, when a fresh weekly ticket will be issued.

APPENDIX O. (abridged).

*Record of Lost Time Accidents over 48 Hours of the Total Plant Department
in 1926.*

Month.			No. of Accidents.	No. of Employees.	Accidents per 1,000 Employees.
January	..	..	120	29,379	4.08
February	..	..	108	29,221	3.70
March	..	..	103	28,745	3.58
April	..	..	111	28,475	3.90
May	..	..	149	28,997	5.14
June	..	..	126	28,824	4.37
July	..	..	155	29,005	5.34
August	..	..	169	28,925	5.84
September	..	..	186	28,989	6.42
October	..	..	165	28,038	5.88
November	..	..	166	26,627	6.23
December	..	..	132	27,003	4.89
Total	..	..	1,690	342,264	
Average per month			140.83	28,522	4.94

*Record of Lost Time Accidents over 48 Hours of the Total Plant Department
in 1927.*

Month.			No. of Accidents.	No. of Employees.	Accidents per 1,000 Employees.
January	..	..	133	27,250	4.88
February	..	..	100	27,031	3.70
March	..	..	150	27,087	5.54
April	..	..	112	26,858	4.17
May	..	..	120	26,997	4.44
June	..	..	139	26,306	5.28
July	..	..	141	26,311	5.36
August	..	..	144	26,497	5.43
September	..	..	152	26,279	5.78
October	..	..	94	26,138	3.60
November	..	..	118	26,067	4.53
December	..	..	132	26,036	5.07
Total	..	..	1,535	318,857	
Average per month			128	26,571	4.81

APPENDIX Q.

Heads of Deductions.

1. Income Tax.
2. Provident Fund.
3. House Rent.
4. Electric Power Supply.
5. Conservancy Cess.
6. Stores.
7. Dairy Farm Account.
8. Tisco. Hotel.
9. Temporary Advance.
10. Building Loan.
11. Court Attachment.
12. Institute.
13. Stamp.
14. General Charity Fund.
15. Labour Federation.
16. Labour Association.
17. Catholic Church Fund.
18. Muslim Mosque Fund.
19. St. George Church Fund.
20. Credit Societies, 22 in number in all. Some men are members of four to five credit societies, and deductions are made from them for those societies at a time.

APPENDIX R.

Copy of Letter No. 3184 of the 31st August, 1929, from the General Manager, the Tata Iron and Steel Works, Jamshedpur, to the Additional Secretary to the Government of Bihar and Orissa, Revenue Department.

Replying to your letter No. 187 L.C. of the 19th August, we have pleasure in forwarding herewith particulars of various production bonus schemes which are in effect at these works. You will notice that there are quite a number of schemes by which bonus is paid on departmental output.

In regard to the general bonus scheme which has been marked "A," we would explain that this has been calculated on a distribution of Rs. 10 lakhs per year for an output of 40,000 tons of finished steel monthly. The smaller Statement "A" shows how this figure rises or falls according to an increase or decrease of output. Forty thousand tons taken as a 100 per cent. earns a bonus of Rs. 83,333 monthly. The larger Statement "A" shows the distribution of this bonus to employees who have been grouped according to their rates of pay. No employee earning more than Rs. 10, daily is entitled to this general production bonus. You will observe that the percentage of general production bonus to pay is greater for the lower paid employees than the higher paid employees, being equivalent to over 20 per cent. of pay for the former class falling to about 3 per cent. of the pay of the highest rated employees in the scheme.

Cashier.—The following bonus has been granted to all employees drawing less than 8 annas a day, or Rs. 15 a month :—(a) Two days' additional pay after every four weeks provided that the employee has not been absent for more than one day during the period for which he is required to work by the management. (b) One day's additional pay after every four weeks provided that the employee has not been absent for more than two days during the period for which he is required to work by the management.

In regard to the Jack-Pot Scheme, this is on trial in one or two departments. The idea is that if 50 men are required to perform certain duties connected with the operation of any unit and the full force is not present, the wages which would have been payable to the absentees are distributed amongst the presentees. This scheme can of course only be applied to such work that must of necessity be performed and will not permit of being left over until the following shift or day. At the present time the scheme has been applied only to certain sections of the open-hearth, duplex furnaces and the gas producers. To maintain the output from these units certain work is essential connected with charging furnaces, making sufficient gas to heat them, etc., which is work that cannot be left over for execution at a later period.

We have one other bonus scheme in operation at the Agrico factory in which agricultural tools, etc., are now being produced. Most of the actual production and finishing work is performed on piece-work rates, but a bonus scheme has been worked out for the non-productive staff by which those engaged on non-production work receive a bonus based on the output of tools, which can be handled without any increase in the non-productive labour force.

GENERAL BONUS.

Basis of Rise or Fall According to Increase or Decrease of Output of Finished Steel.

Tons.		Bonus. Rs.
50,000	150 per cent.	1,25,000
49,000		1,20,833
48,000		1,16,666
47,000		1,12,500
46,000		1,08,333
45,000		1,04,166
44,000		1,00,000
43,000		95,833
42,000		91,666
41,000		87,500
40,000	100 per cent.	83,333
39,000		75,833
38,000		68,333
37,000		60,833
36,000		53,333
35,000		45,833
34,000		38,333
33,000		30,833
32,000		23,333
31,000		15,833
30,000	.. 10 per cent. ..	8,333

THE TINPLATE COMPANY OF INDIA, LTD.

The idea of starting a tinplate industry in India originated during the War, as a result of the acute shortage of tinplate experienced at that time. The company was formed in 1920 and the factory at Golmuri was started up in December 1922. The output of tinplates was expected to be 28,000 tons per annum from 35,000 tons of Tata steel. Actually, over 50,000 tons of steel has been used in a single year, the annual output of tinplates since the start having been as follows :—

Year.	Tons of Tin-plate produced	Total number of Labour.	Tonnage per head.
1923	8,889	2,490	3·57
1924	19,982	3,156	6·33
1925	28,485	3,001	9·49
1926	34,409	2,828	12·17
1927	41,521	2,990	13·89
1928	36,815	2,942	12·51
	(Tata's strike)		
1929	33,133	3,133	10·57
	(Tinplate strike)		

The reduction of output in 1928 was due to the prolonged strike in the Steelworks, and on 7th–8th April 1929 a strike commenced in the Tinplate Works, which has reduced production. In 1930 and onwards, however, the output should be 45,000 tons per annum.

LIST OF SUBJECTS.

I.—Recruitment.

1. The labour employed in Golmuri Works is drawn mainly from the Punjab, U.P., Bihar and Orissa, Bengal, Assam, Madras and South India. About 10 per cent. of our labour force is local, i.e., Sontalis.

2. (i) Men from Bihar and Orissa, Bengal, Assam and U.P.; usually return to their villages for about one month yearly. The remainder accumulate leave and make more extensive visits every two or three years.

(ii) Our normal labour force consists of 2,800 men and 100 women, making a total of 2,900.

3. Labour is not recruited from outside the district. A constant labour supply is available locally.

4. Men from the Punjab, U.P., and Assam (Sylhet) do not usually bring their families to live at Golmuri. Men from Bengal like to bring their families if accommodation is available, but as their homes are usually within easy distance they are able to visit their families fairly frequently if they so desire. Employees from South India usually bring their families.

On the whole, it may be said that a family life at Golmuri is developing, encouraged by good housing and other facilities.

8. (i) The factory has been operating for 6½ years, and we estimate the average duration of employment at the beginning of 1929 at 2·6 years.

Accurate figures for the rank and file are not available, but among clerks and men of the foremen type the duration of employment is as follows :—

	Per cent.
Less than one year's service	8·2
One year to two years' service	12·6
Two years' to three years' service	8·4
Three years' to four years' service	10·5
Four years' to five years' service	8·4
Five years' to six years' service	21·5
Six years' to seven years' service	24·5
Seven years' to eight years' service	5·0
Eight years' and over	·9

Men with six years' service and over started work for us during the construction of the plant.

The following is the approximate division of our labour :—	Per cent.
Foremen and supervisors	4
Skilled workers	52
Semi-skilled workers	29
Unskilled workers	15

(ii) There is but little casual employment except among men and women coolies, the normal number of whom is about 300.

II.—Staff Organisation.

11. The present managing staff was recruited from abroad.

12. *Recruitment and training of subordinate Supervising Staff.*—(i) The subordinate supervising staff is recruited from the ranks. Likely men are selected and trained for new positions.

(ii) Every facility is offered for training and promotion. Any man in the plant is encouraged if he shows ambition.

13. *Relations between staff and rank and file.*—(i) The relations generally are very good, particularly where the rank and file comes in personal contact with the staff.

(iii) We have two principal works committees, one deals with Safety Regulations and is composed of two superintendents, doctor, sanitary officer, a number of Indian foremen and supervisors. It holds meetings periodically to discuss Safety First propaganda and makes enquiries into accidents.

There is also a Committee composed of Indian and European employees, which considers works organisation and suggestions for improving efficiency.

14. (i) The timekeeping registers are entered daily after attendance has been checked between the main time office and the departments. The registers are entered daily in the main time office after the field time-keeper's attendance reports have been verified.

(ii) Wages to daily rated employees are paid on Saturdays by the Cashier's staff. Pay slips are issued from the time office through departmental superintendents on the previous day, and payment is made on presentation of these slips.

15. Contractors are employed only for specific jobs such as buildings, which are outside the usual works routine.

III.—Housing.

16. (i) In addition to 49 European-style bungalows, the company has provided 326 pucca quarters, housing at the last census 425 tenants and 1,411 lodgers, equivalent to 41·5 per cent. of the labour force. Prior to the strike of 6th April, 20 lakhs of bricks had been burnt in readiness to commence the building of 80 additional quarters sanctioned by the company for erection during 1929–30.

(iv) Many workers build their own houses. 724 houses have been built with loans granted by the company, the total of which up to date amounts to Rs. 22,907. Care is exercised to see that the houses are of good design and that good material is put into them. Each loan is limited to a sum that can be repaid in 10 months without undue hardship upon the employee.

17. *Facilities of acquisition of land for workers' houses.*—Leases for buildings workers' houses are readily granted subject to certain conditions imposed by the ground landlords.

18. The company's pucca quarters contain the following accommodation :—

R.N.1 type	..	1 room, bathing place and walled compound.
N.2 type	..	2 rooms, bathing place and walled compound.
M.2 } types	..	2 rooms and verandah, bathing place and water-flushed latrine, walled compound.
M.3 }		
M.4 }		
L.2 type	..	2 rooms with verandahs, outhouse, water tap, bathing place, latrine and walled compound.
H.6 type	..	2 rooms, verandahs, 2 outhouses, water tap, bathing place, latrine and walled compound.
G type	..	3 rooms, verandahs, 2 outhouses, water tap, bathing place and latrine and walled compound.

(i) The accommodation provided is graded according to the class of occupants, but there is always a brisk demand for the popular M.4 and L.2 type quarters.

(ii) These quarters were designed to meet Indian conditions on modern town planning lines. We believe that the designs are unrivalled from a health point of view.

(iii) *Provision made for lighting, conservancy, etc.*—See 26 below. Electric lights (and fans) have been installed in 20 of the higher grade quarters.

19. The available accommodation is fully utilized and there is a demand for more owing rather to the growing desire of employees to bring their families to Golmuri than to any absolute shortage. Occupants are very apt to take in lodgers and overcrowd. Quarters designed for two or three single men, or for a small family, are sometimes found to contain as many as 10–14 men, although we endeavour to discourage this practice.

20. The rentals of the company's quarters are fixed on the uneconomic basis of 5 per cent. (and in some as little as 3½ per cent.) of the capital cost. Having been erected during the very expensive years 1920–21–22, the quarters cost on the whole considerably more, although rented only slightly higher, than corresponding quarters built by our neighbours The Tata Iron and Steel Works, whose corresponding rental rates are appended for comparison :—

Type of quarter.	Rental per month.							
	Tinplate Company.			Tata Company.				
R.N.1	Rs.	2	8	0	Rs.	2	4	0
N.2		3	4	0		3	2	0
M.2		4	4	0		4	0	0
M.3		6	8	0		—		
M.4		7	8	0		—		
L.2		11	0	0 (a)		9	0	0
H.6		19	0	0 (b)		12	0	0
G.		25	0	0 (b)		21	0	0

(a) Includes voluntary increase of Re. 1. for water connection.

(b) Includes Rs. 5. for electric light and fan supply.

(21) There is no subletting except when an employee takes in lodgers, and other companies' employees occupy our quarters as lodgers only.

Except in houses occupied by married men and their families, subletting and profiteering exists to some extent. Among the men from Sylhet overcrowding is particularly noticeable, quarters granted to two men frequently being found to contain 10 to 14 men. It is almost impossible to prevent this as the workers themselves are the offenders.

Ordinarily speaking the question of eviction does not arise. Men leaving the company's service are required to vacate the company's quarters within three days, and as the conditions of tenancy provide expressly for this, difficulty is seldom experienced under normal conditions.

Wholesale eviction in the case of a body of men who are determined to resist is a difficult matter and seldom successful under three months of court procedure largely on account of the legal difficulties involved. Unfortunately we have been compelled during the strike to issue eviction notices to those of our former employees who refused to work for the company any longer. As difficulty was experienced in housing new men 12 blocks of temporary quarters were built. Each block is built of corrugated iron with brick pillars and cement floor, and consists of 12 rooms. These quarters are only temporary and will be dismantled in due course. Meanwhile the demand for them has been considerable.

IV.—Health.

(23) *General Health Conditions of Workers*—(i) *Figures of mortality*.—There is no compulsory notification of deaths and we are able to state only the number that have come under our notice since we started to record them, viz. :—

1927 (August to December) ..	8
1928	11
1929 (January to July) ..	5

No census figures are available for this area, but the population is estimated to be about 5,000. Taking these figures as a basis the death-rates are :—

In 1927	1·7 per mille.
1928	2·2 "
1929	3·9 "

(ii) *Birth-rate and infant mortality* :—

Year.	No. of births.
1927	9 = 4·3 per mille.
1928	27 = 5·4 "
1929 (to July) ..	15 = 5·1 "

No figures of infant mortality are available.

(iii) *Working conditions*—(a) *At work places*.—Working conditions in the factory are good. The buildings are particularly lofty and spacious, and are kept scrupulously clean as are the approaches and surroundings. Cooled air is blown on to the workmen exposed to the worst heat, and furnace fronts and floors are cooled by water. No expense has been spared to instal every facility possible to ameliorate conditions in a process which can be trying even in a temperate climate.

(b) *At home*.—No work is done at home for the company, though doubtless carpentry, tin-smith work, etc., are carried on as a spare time occupation.

(iv) *Dietary—Punjabi*.—Atta, Dal (specially arahar and gram), ghee, milk, vegetables, rice, mutton.

U.P.—Rice, atta, dal, arahar, gram, mung, oil, ghee, milk, vegetables, meat (goat). Most of the Brahmins live on vegetable diet.

Bengal and Assam.—Rice, dal (all kinds), mustard oil, ghee, spices, atta (small quantity), milk, vegetables, meat (goat), egg and fish.

Local inhabitants.—Same as Bengalees, but they take mainly rice, dal and some vegetables, fish, mutton occasionally.

South Indians.—Rice, dal (kalai and arahar mainly), oil (gingily and coconut), coconut, vegetables (potatoes, cabbage, cauliflower, patal very rarely used), tamarind, capsicum, spices, ghee, milk butter-milk and atta (very rarely used).

South Indians (non-Brahmins).—Same as above and fish, meat (goat), egg, milk, ghee.

(v) *Physique—Punjabi*.—Tall, muscular and robust constitution.

U.P.—Tall, muscular and robust constitution.

Bengal and Assam.—Medium size, moderately built. The East Bengal people are robust, muscular, and very hardy.

Gurkhas.—Short in stature, robust, muscular, very hardy.

Local inhabitants.—Size medium, moderately built and hardy.

South Indians.—Medium size, moderately built, hardy.

(24) (i) The company provides medicine, and medical and surgical treatment, free to all comers, and maintains a hospital outside the works gate and a first-aid post inside the works, as well as a small hospital for European employees in the town. The works' hospital comprises a dispensary, minor dressing-station and a ward with three beds for in-patients as well as usual offices. The staff consist of two qualified doctors, one hospital trained nurse, five compounders and two dressers. A day and night service is maintained.

(25) (i) The medical facilities are utilised extensively by our employees, and those of the neighbouring companies, by the local inhabitants and even by villagers residing 10 to 12 miles away, as shown by the following figures :—

Year.	No. of cases.	Minor Operations.
—	—	—
In 1927 ..	91,193	1,676
1928 ..	89,193	1,980

Occasionally patients revert to homoeopaths and kaviraj's when allopathic treatment is slow or seems unsuccessful.

(ii) Women avail themselves of the treatment afforded in increasing numbers, Women of the uneducated classes come freely to the hospital, but educated women of the better classes are usually treated in their homes.

26. *Sanitary Arrangements.*—(i) (a) Water-flushed latrines are provided at suitable places throughout the works. There are in all 36 seats for men and 18 seats for women. The workpeople (especially men) are often too lazy to use them and prefer, if unseen, to foul any convenient spots near their working places. (b) Private latrines are provided in all the company's pucca quarters except the two smallest types, the occupants of which use the public latrines, of which there are altogether 46 seats available in convenient places.

All latrines are water-flushed except a few in quarters to which it would have been too costly to lay sewers.

(ii) (a) A plentiful supply of drinking water is available throughout the factory. (b) Filtered water is laid on to the village. The bigger quarters have taps of their own ; the smaller ones draw from taps (or, more commonly, " rotary boilers ") in the alleyways.

(iii) (a) There is a bathing place at each latrine. (b) Every quarter has its own bathing place.

27. *Extent and Nature of Official Supervision.*—(i) *Work of boards of health in special areas.*—The official supervision is undertaken by the Jamshedpur Board of Works, which provides a qualified chemist, health officer, and sanitary officers to attend to filtered water supplies and general sanitation of the district.

Control over private houses built in villages is exercised by the ground landlord through a specially appointed officer who sees that the building regulations are not infringed.

28. *Suitability of Existing Factories and Mines Rules.*—(i) *Control of temperature in factories.*—No form of special temperature control is needed for the process of making tinplates, but for the comfort of the workmen every effort has been made to keep the works as cool as possible. This applies particularly to the hot mills and tin-house, which are considered to be the hardest departments.

During the hot months with the outside temperature at anything between 100°–115° F. in the shade we are able to effect a reduction of 20° F. in the air blown on to the mills by means of the air-washing system.

29. (ii) Dysentery is prevalent at certain times of the year, and malaria, and some cases of kala-azar, but practically no cholera or hookworm.

31. Women who have been employed by the company for one year or more are allowed six weeks' leave on full pay upon confinement.

V. Welfare (other than Health and Housing, but including Education).

34. The company has provided a suitable club building which is utilized as a club by the Indian employees. It is run entirely by the members.

36. The company contributes its quota to the Jamshedpur Board of Works' educational activities. Schools are maintained for the whole area under this authority. There is a free Middle English School in Golmuri and about 60 children attend regularly. The company contributed Rs. 4,326 to the capital cost of this school building.

37. *Desirability and possibility of provision for old age and premature retirement.*—As this plant has been in operation only six years we have not yet been faced with the problem, but we have endeavoured to anticipate it by means of a Provident Fund.

38. The Co-operative movement is represented among the employees of this company by two co-operative Credit Societies and one Co-operative Stores Society. The Stores Society had 84 members and a paid up capital of Rs. 1,640. It was not a success as it was too small to justify the employment of a whole time competent

manager and owing to lack of experience among the officials, purchases and sales were badly conducted. The society is now insolvent but a scheme is in operation by means of which it is hoped to repay the shareholders in full.

There are two credit societies, one formed by the clerks and foremen and the other by the ordinary workmen of the plant. The following details are of interest :—

Name of Co-operative Society	..	..	..	General	Friends
Number of members (up to June, 1929)	..	..	..	67	284
Paid up capital	..	..	..	Rs. 8,470	Rs. 28,586-8-0
Loans granted : 1925	..	..	..	—	1,382
1926	..	..	..	—	16,216
1927	..	..	..	13,088	30,305
1928	..	..	..	12,610	52,350
1929 (to June)	..	..	..	3,960	10,035
				Rs. 29,658	Rs. 110,288

Both societies have done considerable work in granting loans to members and managed to pay 6 per cent. dividends after making the usual reserves. It is a matter for regret, however, that the members seem to regard the societies more as convenient sources of loans than as a means of saving. Most ingenious schemes constantly come to the notice of the committees to stimulate, not thrift but borrowing, and at one time there was considerable danger of the societies collapsing, because members borrowed up to the limit warranted by their share capital and then stood as sureties to other members time and time again. As a result some members were liable as a borrower and surety for many times the value of their shares, and one big failure would possibly have caused the collapse of the whole society. Some of the company's officials now act in private capacities as advisers to the societies and it is hoped to run them more rigidly and to impress the idea of thrift, not borrowing, on the members.

VII. Safety.

43. Safety regulations are in force generally, and particularly for the machine shop, boilers, locomotives, cranes and various other departments.

44. Incidence of Accidents.—	1927.	1928.
Average number of employees at work	2,930	2,892
Number of accidents { Fatal	1 (a)	nil.
{ Serious*	63	50
{ Minor	276	190
	340	240
Average days lost per accident	15.4	18.5

(a) Due to septic poisoning.

* Incapacitated more than 21 days.

46. Every effort is made to prevent accidents and the factory's record in this respect is very good, although simple cuts and burns are frequent owing to the nature of the work. Copies of safety rules are displayed in prominent places. Machines, belting, etc., are fenced: employees are forbidden to wear loose clothing such as dhotis, that might be entangled in machinery. Boots, hand leathers, goggles, aprons, etc., are provided where necessary, free of charge. A safety-first committee consisting of medical officer, the chief electric engineer, health officer, Indian foreman and supervisors, etc., holds regular meetings presided over by a senior official to consider safety precautions and safety propaganda and records of these meetings are maintained. Enquiries are made into all serious accidents.

48. First-aid outfits and stretchers are maintained in all departments. There is a first-aid post with a qualified compounder and dresser in the centre of the works. All cases, even trivial cuts, are attended to.

50. With the relatively short hours worked in this plant, the effect upon safety of fatigue caused by excessive hours does not occur. We have never had an accident traceable to fatigue. The general standard of health amongst our workmen is very high, and men who are in any degree unfit are encouraged to visit the hospital and are kept out of the works until they are well. It may be remarked that, as soon as they are able to get about, they usually attempt to resume duty even though the doctor has not passed them as fit. The plant is well lighted by electricity and as there are also ample connections for temporary lamps we have had no accidents traceable to defective lighting.

VIII. Workmen's Compensation Act.

51. (iii) *Effect on industry.*—It was already the practice of this company before the Workmen's Compensation Act came into force, to compensate workers for time lost as a result of bona-fide accidents. So far as we are concerned, therefore, the Act has only had the effect of defining and limiting our liability, but it has also benefited the worker by ensuring a certain basis of computation and letting him know exactly what compensation he may expect.

53. (i) The scheme of compensation for temporary disablement might be enhanced for workers earning under Re. 1 a day. Half-pay after the statutory waiting period seems inadequate for a man on this wage.

(ii) We think the conditions governing granting of compensation are adequate.

IX.—Hours.

A. Factories.

55. (i) The tinplate industry being a continuous process is worked on the basis of three 8 hours' shifts a day. The normal working week is of 6 days, or 48 hours.

(ii) In all operating departments 40 or 48 hours are worked per week according as the plant works 5 or 6 days. Overtime is worked only when absolutely necessary by such as millwrights or electrical or mechanical repair gangs.

(iii) Normally there is no spreadover, though in cases of serious breakdowns some of the most important men concerned might be called out to assist.

56. In the hot mills two shifts work 6 days and one shift works 5 days a week turn and turn about. The rest of the plant works 6 days a week.

57. *Effect of 60 hours' restriction.*—(i) *On workers.*—We have already explained that most of our work, except breakdown jobs, is on an 8-hour shift basis or a maximum of 48 hours per week. It is only in rare emergency cases that men might work 60 hours in a week. In many cases, however, a limit is not desired by workmen themselves, and we have at times difficulty in persuading men that they must not work seven days a week. This was once made the subject of a grievance by the millwright gang.

59. We do not contemplate a reduction of maxima as in normal circumstances men do not work more than 48 hours per week. We frequently have difficulty in preventing the average workman exceeding the limit already laid down by the Factory Act. With shorter hours there would be a real risk of workmen obtaining employment in neighbouring factories. We have had cases of this even under present conditions.

60. *Intervals.*—(i) (a) Sufficient staff is carried to permit of spell hands, and no interval is necessary to take care of fatigue. In the hot mills the most arduous work in the plant, each man on the crew actually works an average of only 1-4/7 hours on an 8-hour shift.

(b) All workers have sufficient time off for meals. In continuous processes times for meals are found by arrangement with fellow-workers. In departments working general shift (7.0 a.m. to 11.30 a.m. and 1.30 p.m. to 5.0 p.m.) two hours are allowed as rest and meal interval.

(ii) The existing law is suitable, with the exemptions permitted to continuous processes.

(iv) Each employee is allowed every Sunday (or a day in lieu) as a holiday and two days' festival leave per annum on full pay.

61. (i) The existing practice is to observe Sunday as a day of rest.

(ii) The present law appears to be suitable.

62. We have not found it necessary to take advantage of the exempting provisions except in respect of periods of rest for work necessitating continuous production, as per section 30 (i) (c) of the Indian Factories Act.

X.—Special Questions relating to Women, young Adults and Children.

82. The admission of infants is strictly forbidden, but we have difficulty in enforcing this rule, particularly in the case of women workers who are unable to leave their children at home. A rest shed has been provided for women, and they can leave small infants there, but older children get into the works and continually have to be turned out.

83. The regulations seem suitable to women workers in our factory. The only women we have are cooly women handling coal, etc. Prior to the strike we had women openers, but we decided they were not suitable.

XII.—Wages.

96. Prevailing rates of wages and earnings are :—

	Earning per day.			Earning per month.		
	Rs.		Rs.	Rs.		Rs.
Women coolies	0	7	0	0	8	0
Coolies	0	9	0	0	10	0
Khalasis	0	10	0	1	0	0
Mate	0	12	0	—	—	—
Serang	1	14	0	—	—	—
Moulder	0	14	0	1	4	0
Fitter	1	0	0	3	0	0
Smith	1	2	0	2	4	0
Carpenter	1	4	0	1	12	0
Turner	1	2	0	3	0	0
Driller	1	8	0	2	8	0
Mason	1	4	0	2	4	0
Fireman	0	14	0	1	2	0
Loco driver	2	4	0	3	0	0
Boiler attender	3	0	0	—	—	—
Electric crane-man	1	0	0	2	8	0
Electricians	1	8	0	3	2	0
S.B. attendant	—	—	—	—	—	—
H.M. operators	1	0	0	2	12	0
H.M. instructors	—	—	—	—	—	—
T.H. operators	0	10	0	275	0	0
Roll turners	1	2	0	150	0	0
Annealers	—	—	—	—	—	—
Acid picklers	1	4	0	125	0	0

97. The movement in recent years has been upward. Our policy has always been to reduce numbers and increase wage rates. Following are typical figures :—

	1926 maximum.	1929 maximum.
H.M. instructor	65 8 0	125 0
H.M. operator (max.)	2 10 0	2 12 and bonus:
Pickler	90 0 0	125 0
Annealer	100 0 0	125 0
S.B. attendant	40 0 0	50 0 and bonus.
T.H. operator	250 0 0	275 0 and allowance.
Roll turner	2 4 0 per day	150 0
Carpenter	2 0 0	1 12 and bonus.
Mason	1 6 0	2 4
Turner	2 8 0	3 0
Driller	1 8 0	2 8
Electricians	2 12 0	3 2

Average wage per head.

	All labour.	Excluding coolies and rejas.
	Rs.	Rs.
1926	32.37	34.82
1927	31.58	34.71
1928	31.68	34.15
1929 (March)	35.0	—
1929 (including bonus)	37.8	40.25

At first sight it would seem that these figures contradict the statement that wages have moved upward in recent years, but it must be borne in mind that to start up the plant—the first of the kind in India—we had not only to pay higher rates than were warranted in order to attract and retain men but also to engage more men than were necessary in the hope of training them. None of these original men have been reduced even if they have failed to make good workmen, and even to-day we have men paid Rs. 2.8 for doing a Rs. 1.8 job. Men engaged after the plant was well started had to start at the bottom, and the introduction of a properly graded scale caused the apparent drop in wages in 1927–28.

98. *Amount sent to villages.*—Evidence before the Tariff Board (Vol. 7, p. 194) gave a figure of Rs. 30,000 sent from the Post Office every month by Tinplate Workers and from the wages nowadays being paid it is probably being exceeded. In addition, remittances are doubtless made through other post offices and some of the senior employees have banking accounts.

99. We have no payments in kind.

102. Overtime is normally paid at ordinary rates but overtime over 60 hours (if worked) is paid at the rate of time and a quarter in accordance with Factory Act. Men working on Sunday are given a day off during the week.

104. *Effect of wage-changes on labour supply.*—We have experienced no difficulty in labour supply at any time.

106. *Deductions.*—(i) Fining has been completely discontinued in this plant since the beginning of 1928.

(ii) Other deductions are for house rent of company's quarters, income tax, provident fund, and repayment of loans made by Co-Operative Credit Societies or the company.

(iv) So far as we are concerned no legislation is necessary.

107. (i) Daily rated men are paid weekly. Monthly rated men are paid monthly.

(ii) *Periods elapsing before payment.*—In case of daily rated men one week. Monthly men are paid between the 1st and the 4th of the succeeding month.

(iii) *Desirability of legislation.*—(a) *To regulate periods.*—So far as we are concerned legislation is not necessary. (b) *To prevent delay in payment.*—We should have no objection to legislation as it would be unlikely to affect us.

(iv) Unclaimed wages are used as a charity fund when necessary, entirely for the benefit of the Indian workmen. The balance of unclaimed wages up to the time of the strike was Rs. 11,833-12-0.

109. We pay a percentage of salary as a bonus on production, the percentage increasing with output. On the Hot Mills, where men work in crews and the output is a matter for team work combined with individual effort, bonus is paid on the production obtained by each crew. The rest of the plant is paid the average of the Hot Mill crews' bonus calculated on individual earnings.

This was only in force from 1st March, 1929 until the strike broke out on 7th April, 1929, but the earnings were :—

			March.	April.
			Per cent.	Per cent.
Best crew on mills	..	..	20·6	21·5
Next best crew on mills	..	..	15·9	20·5
Next best crew on mills	..	..	15·3	
Average	..	..	11·0	12·0

These results were obtained at one of the most difficult times of the year when the hot weather had started. The average maximum for the first week of April was 102·6° F.

Corresponding bonus figures for November and December, 1929 and January, 1930, are as follows :—

		November.	December.	January.
		Per cent.	Per cent.	Per cent.
Best crew on mills	..	30·21	39·24	35·00
Next crew	..	25·10	38·64	32·60
Next crew	..	21·20	27·62	28·40
Average	..	12·54	21·35	22·39

A provident fund has also been sanctioned under which employees are at liberty to contribute 1/12th of their annual salary and the company will contribute an equal amount at the end of the year.

110. (i) Workers living in Bengal, Assam, Bihar and Orissa, and the Punjab usually take their leave annually, but those living in Southern India accumulate their leave for two or three years. The company's regulations provide for this. Daily rated employees are not granted leave with pay beyond 2 days festival leave per annum. Monthly rated employees are granted 14 days privilege leave, 5 days sick leave and 2 days festival leave per annum with pay. Daily rated employees

usually take 4 to 6 weeks a year. Monthly employees take their fortnight or a little more. Overstaying leave is frequent and causes considerable disorganisation both to the management and fellow workers. The company's labour force is composed of 10·45 per cent. monthly rated and 89·55 per cent. of daily rated employees.

(ii) Leave is countenanced by company, and officials afford every assistance in granting, although handicapped by insufficient notice from the men and their failure to return on due date.

XIII.—Industrial Efficiency of Workers.

112. So far as this works is concerned there has been no change in the efficiency of the unskilled workers or of such classes as fitters, machinists, blacksmiths or carpenters, who come to us having already learnt their trade. We have apprentices in mechanical and electrical engineering departments, but we have not been working long enough for these to make an appreciable effect on our labour supply. With regard to the skilled work peculiar to our industry we are glad to record the progress that has been made. Tinsplate workers have always held the reputation of being highly skilled and as this is the first tinsplate plant in India it follows that Indian tin workers had to be made from the beginning. At the end of six years we have succeeded in training men for all positions on the Hot Mills, i.e., heaters, roughers and rollers, and have Indian foremen or instructors. The finer points, however, such as judgment of the temperature of the furnaces or a knowledge of the correct regulation of the rolls to suit different conditions of temperature and gauge, are learnt only by experience and for these we are dependant upon our expert covenanted hands. In other departments, we have Indian shearers, picklers, annealers, tinhouse operators, and assorters. These jobs have been simplified to such an extent that we experience very little difficulty in training new men in a short time. Outside of the process departments we have no covenanted superintendents, the time office, stores, mechanical, electrical, machine shop and traffic, etc., being all superintended by local men who have risen from the ranks.

113. In our opinion the Indian worker is not so efficient as the European or American tin worker. To take the Hot Mills as an illustration, our mills, worked on the double-mill 3-part system carry crews of 42 men per mill, whereas on similar mills in the U.S.A. the crew numbers 18.

To compare the general efficiency of the workers with European conditions we submit the following figures :—

Total number of employees (average 1926)	2,827
From this deduct men such as are not properly part of the works organisation—	
Town	34
Medical	19
Watch and ward	40
	— 93
	<hr/> 2,734

The Welsh Plate and Sheet Manufacturers Association, in their representation to the Tariff Board (Statutory Enquiry, Steel Industry, Vol. VII, p. 91) stated in a letter dated 24th June 1926, para. VI, that the total number of employees for a 6-mill equipment similar to ours operating 3 shifts and producing 36,000 tons of tinplates per annum would be between 710 and 720.

This gives a ratio of 1 : 3·6, but this figure must be modified in view of the outputs since achieved. 1928 and 1929 results are useless for comparison as the former year included 4½ months of half-time working owing to strikes in the steel works, and the latter has been marred by a strike in the tinsplate works. In 1927, the latest year for which full working was recorded, we find that the output rose to 43,191 tons of finished plate, and taking this into consideration we obtain a revised labour ratio of 1 : 3·0, equivalent to a 20 per cent. improvement. Since 1927, further strides have been made and with a year's straight-forward working we might fairly reckon on an output of at least 45,000 tons which would still further improve the ratio to 1 : 2·8.

114. (ix) Our records show that output remains fairly constant and is highest through the cold months. During May and June, production decreases but picks up after the break of the monsoon. This accords with experience in tinsplate works during winter and summer months in England and America. We believe our efficiency compares favourably with that of works situated in temperate climates, though we suffer in comparison owing to the longer spell of hot and humid weather.

115. (iv) We believe that good and adequate housing, leading to contented and healthy workmen, reacts to the benefit of production. Though our housing is not so extensive as we should like and hope ultimately to have, it is good, and we cannot say that production has suffered on account of bad housing.

(v) Methods of remuneration have been improved by acting allowance as well as the bonus and provident fund already referred to. The bonus was intended to stimulate production but had only been in effect for one month before a strike took place, so we are scarcely in a position to express an opinion on its results.

(vi) Although wage levels have risen we cannot say that they have stimulated production, as 1927 still stands as our best year, even though wage levels were lower.

(viii) As far as our information goes, the men in this plant have now a better dietary than they had five or six years ago. This is due to increased spending power and to better supplies of food stuffs being available in the bazaars, and has no doubt been a help in getting the bigger production that is nowadays possible.

(ix) To the best of our knowledge but few of our employees are addicted to alcohol or drugs.

XIV.—Trade Combinations.

117. *Extent of organization of—*(i) *Employers.*—This company belongs to no employers' organization.

(ii) *Employed.*—Amongst the workmen a Union was formed towards the close of 1928, which was registered under the Trades Union Act.

118. *Effect of organization on—*(i) *Industry.*—The effect on our industry has so far been disastrous.

(ii) *Conditions of workers generally.*—The Workers' Union was effective in drawing our attention to one or two small points that permitted of improvement, but by its attitude towards bigger questions it has turned a body of generally contented and prosperous workmen into discontented strikers.

119. The nature of the Union's activities has been most disappointing. It made no attempt at constructive trade unionism, but devoted its energies to subversive propaganda.

120. (i) The Tinplate Workers' Union was formed on the 18th October, 1928. Mass meetings were held at which violent and exciting speeches were made. Facts were misrepresented both to the workmen and to outside leaders who came to help in the formation of the Union. This led to the resignation of the first President. The campaign of lies was continued and a list of demands, many of which were ridiculous, submitted. Some of them such as bonus, and provident fund, had been under consideration for a long time and had only been delayed by the general unsettled labour condition in this area. Every effort was made to meet and help the leaders of the Union but such efforts were viewed with suspicion. The Union officials could not bring themselves to believe or to tell the men that the company was sincere. Eventually a lightning strike was engineered without warning or notice and in defiance of the Union Committee.

(ii) It is difficult to define the attitude of the workers. As a body they are mostly ignorant and easily led and their attitude depends largely upon their leaders. Since the formation of the Tinplate Workers' Union, the leaders have displayed a hostile attitude and the workers have followed suit. The men have little control, being at the mercy of the communal leaders and a few educated men kept in the back ground.

(iii) We look with favour on a properly constituted and well-run union, as we realize that it is to our mutual benefit to have such an association. It could draw our attention to any genuine grievances or weak spots and we should have the satisfaction of dealing with recognized leaders. Unfortunately this is a pious hope that has not yet been realised.

121. *Trade Unions Act, 1926—*(iii) *Possible amendments.*—Men who desire to work should be permitted to do so. The existing law provided inadequate protection for them. We could cite numerous cases of men leaving their houses to come to work and being molested or badly assaulted by picketers, usually when the man was alone and not in a position to defend himself. In the absence of witnesses the offence is apparently non-cognisable under the present law. Cases of intimidation, threatening the women folk and families of workmen, and even actual abduction, not only by night but also in broad daylight, came to our notice, and we have no hesitation in saying that the law which permits these under the guise of peaceful and non-violent picketing is defective and should be amended without delay.

XV.—Industrial Disputes.

123. *Extent of strikes and lock-outs*—(i) *Causes*.—The only important strike we have had is that of 1929, the cause of which was mendacious and subversive propaganda on the part of a few men.

(ii) *Duration and character*.—The strike has been marked by violent intimidation of loyal workmen and continued deceit of the strikers by their leaders. When the strike was declared, the Union officials were sent for and were asked why they were on strike. The answer was that the men had revolted. They were then requested to put the men back to work and an investigation would be made next morning. This request was absolutely ignored by the officials. There was, therefore, no investigation made of the strike.

(iii) *Nature of settlement*.—There has been no settlement.

(iv) *Loss to industry and workers*.—Figures of loss to this industry through the present strike are not yet available. We estimate the loss to workers at approximately Rs. 50,000. This latter figure may appear low, but although the strikers lost their pay for the time they were out, their places were taken by new men and the same amount of money was going out to workmen as before. We are unable to give the loss to the strikers themselves. We should like to make it clear that the "new" men taken on to replace the strikers included a considerable proportion—perhaps 300 to 400—of old workers who had been trained by us, gone away, and returned in the hope of securing further employment.

124. *Conciliation and arbitration machinery*—(i) *Results of previous investigations*.—We had a small strike in March to April, 1924, which was quickly settled by granting some of the men's demands. From then up to 1929 we had no labour trouble and the men drew full pay every week. The 1929 strike was declared without warning or notice, and there was no previous investigation other than afforded by ordinary meetings between the Company and the Union. In the last meeting the Union officials left the general manager's office, after stating that they were perfectly satisfied with the state of affairs and had nothing further to discuss. Within 48 hours the works were on strike.

125. We consider the Trades Disputes Act a move in the right direction, but it could be improved, in the interests of loyal and willing workers, as well as of the industry, by making picketing illegal.

THE INDIAN COLLIERY EMPLOYEES' ASSOCIATION, JHARIA.

I.—Recruitment.

1. Most of the colliery labourers were originally cultivators. Some of the skilled labourers, such as fitters, turners, pumpmen, blacksmiths and carpenters, etc., belonged to the village artisan classes. Their professions in the villages were weaving, pottery, smithy, carpentry, oil-pressing and occupations of the like. The labourers in the coal industry are generally imported from the neighbouring districts. The labourers in the Jharia coalfields, for instance, mainly come from Manbhum, Hazaribagh, Sonthal Pergonas and other districts of Behar and Bengal. A small number of course come from some such distant places as C.P., U.P., the Punjab and Madras provinces.

Migration of labourers from one colliery to another, is not so frequent nowadays. But sometimes they are found moving from one place to another for such unavoidable causes as (1) closing down of mines; (2) reduction of operatives; (3) extreme cases of disagreement in terms of wages and working conditions; (4) housing difficulties; (5) and repressive measures such as fines, etc.

2. To speak of the actual miners, most of them can be said to have almost become permanent labourers in the coal industry. They live and work in the colliery all through the year. Materially they have got very little connection with the villages, but owing to poor accommodation, insecurity of service, piece work (no work no pay) system and other difficulties of domestic and social functions such as child birth, marriage, etc., all of them have not yet cut off their connection with the villages.

Those miners who have still got a sort of contact with villages generally visit the villages twice every year; once in the monsoon for a month or so for cultivating their fields and once about the month of January for harvesting, marriages and enjoyment of village festivals.

Roughly calculating 50 per cent. of the labour force occasionally go back to the villages in the above way and the rest are permanent inhabitants of collieries.

3. In the coal industry recruitment of labour is no longer necessary now. There was never before any organized method of recruiting colliery labour in India. Each colliery used to send its own men (contractors or salaried men) to the villages of labourers to recruit them on payment of some money in advance, which was afterwards deducted from the wages of the labourers. The recruiters also were paid out of their wages.

In Ranigunj some labourers are forced to work in certain mines as arranged by the mine owners with the "zamindars" or headmen of villages on payment of commission or on some such terms. Some of the colliery owners also have acquired zamindari rights to compel the labourers living in their zamindaries to work under them in their own collieries.

7. Owing to the absence of any statistics it is not possible to furnish all particulars relating to the question of unemployment in the mining industry. But the fact that about three hundred collieries have been closed down within the last several years and many others have retrenched in different departments of their firms is a proof positive that the question of unemployment in this industry is a very serious one.

Many unemployed miners have been compelled to leave for Assam or Madras to find jobs in those places.

Unemployment among all classes of workers—manual and non-manual, is a permanent feature of the mining industry.

Establishment of unemployment bureaux is the best means to alleviate the distress of the unemployed workers.

II.—Staff Organization.

10, 11 and 12. So far as the miners are concerned there is no arrangement for their training or education of any kind. They are wholly ignorant of the scientific aspect of mining. Their practical experience is the sole guide to their work.

13. The relation between the staff and the workers cannot always remain smooth and cordial. The management wants the staff to derive the maximum work at the minimum cost which the staff finds very difficult to achieve. Shortage of materials such as coal tubs, timber and other appliances, low wages, under calculation of wages for extortion of money and other deficiencies give rise to grievances of workmen and it is not unoften that the staff and the workers fall out with one another for one reason or another.

14. Miners in India are paid on piece work system. Registers of attendance are kept in collieries by clerks appointed for the purpose according to mining rules, to show the duration of time the workers remain underground. They are required to be checked by managers or other responsible officers.

The miners are paid so much per tub of coal of various sizes without any standard. There are no weighing machines in any colliery. The total number of tubs against each miner is counted at the end of the week, and the miners are paid after deduction of fines, compensation for loss or breakage of tools and other charges if there be any.

The system of paying commission to the supervising staff on surplus stock, is to be deprecated, as under this system, the supervising staff in their endeavour to win commission force the miners to overload the tubs and cancel wholesale payment for even slightly underloaded tubs.

15. Contract system is largely prevalent in the coal industry. Besides managing agents and managing contractors who work with the authority and responsibility of owners, there are coal raising contractors and petty contractors for such works as building, sinking, driving of mains, etc., in many collieries. About 80 per cent. of the total output of coal are raised through contractors. Other works also are done by contract almost to the same extent. The raising contractors amongst others are the most important contractors in collieries. They are responsible to maintain the output of coal. They get weekly payments from the company according to their contract rate per ton of coal and they pay the miners evidently on a lower rate settled with the miners.

III.—Housing.

16 and 17. The colliery labourers are provided with rent free quarters built by the employers within the colliery compound.

18. The houses for labourers are generally built in blocks of a number of rooms arranged back to back with a single wall between the two rows. These rooms are

said to be of standard size according to the bye-laws of the Jharia Mines Board of Health. But these rooms as can be evidenced from a look at them are in no way satisfactory for human habitation.

One room is allotted to one family of miners consisting of three or four members and the same room serves the purpose of kitchen, store, sitting and bedroom. There is no arrangements for maintenance of privacy of family life and the inconvenience can be easily imagined. It also happens at times that the same room is made to be used alternately by two families who work in alternate shifts.

This sort of over-crowding and living in one dark and dingy room cannot be but injurious to the health of workers.

There is no provision for lighting. Conservancy arrangements for ordinary sweepings has been made according to the rules of the Mines Board of Health. The miners use open kerosine lamps in their houses and go out in the open fields for call of nature. Drinking water in the Jharia coalfield is nowadays available for the public water supply. One or two water-taps are provided near about the miners houses, from which they draw their drinking water, but for bathing and washing purposes they are to use dirty tank water. There are still many collieries in the Jharia coalfields which have not yet taken connection for filtered water. In Ranigunj and other coalfields the colliery labourers drink tank or well water as may be available in those places.

22. The housing conditions as stated above are productive of various evils to the colliery labourers. They are affected both morally and physically on account of this sort of housing conditions.

IV.—Health.

23. Overworking in the mining atmosphere, underfeeding, housing difficulties and other untoward conditions leading to undesirable ways of living have much deteriorated the general health condition of the miners. Periodical outbreaks of cholera epidemic which was so very common before has been to a certain extent checked by the supply of filtered water, but so long as food, housing and other conditions for the growth of healthy family life have not been improved, health conditions of the workers will not improve.

General death rate has been calculated by the Mines Board of Health to be 17 to 18 per thousand.

It has been calculated by the Mines Board of Health that in 1924 the rates of infant mortality in Dhanbad Sub-Division and in the coal area under the Sub-Division were respectively 156 and 213 per thousand.

This shows that the rate of infant mortality in the rural area was only 99 per thousand, while in the coal area the rate was 213 per thousand, that is more than double of the rural area.

(iii) The miners generally, work two shifts in the coal industry. The morning shiftmen take their meal by about 8 o'clock in the morning, consisting of rice and salt and nothing else, and go down underground for work where they are to remain ten to twelve hours. When they come out it often becomes late in the evening. Then they wash, and if it is not too late, they prepare a simple meal of rice only. The night shiftmen also work in the same way in the night and come out late in the morning. Thus on an average they can take in 24 hours one and a half meals of the above descriptions namely, rice and salt with little "dal" or vegetable at times. It is undoubtedly a fact that the working people for want of proper facilities have not yet been able to adapt themselves to the conditions and environments of the industrial centres and consequently there is a great disturbance of sex ratio in those places. The effect of these disturbances has been injurious to the workers in various ways. The habit of drinking, gambling and the prevalence of venereal diseases, etc., are to a certain extent due to this disturbance.

24. According to Mines Board of Health bye-laws, every colliery has got some sort of arrangement for providing medical aid to the workmen, but with the exception of a few big collieries the arrangements are poor; not even up to the minimum standard. In the Jharia coalfield all accident cases excepting the very simple ones are treated at the Civil Hospital situated at Dhanbad, financed and controlled by the District Board.

There are no provisions for women doctors, trained midwives or "dais" of any kind in any colliery. Delivery cases therefore, are entirely neglected.

25. The question that the workmen do not utilise medical facilities even when provided, is nothing but an excuse to avoid expenditure for medical arrangement.

26. There are no latrine arrangement in the collieries for which a great inconvenience is felt by the workmen. In the villages, jungles and open places are available a little away from the villages, and consequently the people do not feel any difficulty there for the want of latrine.

V.—Welfare.

32-34. No welfare work worth the name has ever been done in the coalfield by the employers. Whatever improvement has been achieved in the condition of the workers has been achieved through legislation in recent years.

The Indian Colliery Employees' Association for its limited resources and on account of various handicaps could not go beyond redressing some individual grievances and organizing lectures on hygiene and allied subjects.

If any arrangement for provision of welfare works is to be made, it should be made in consultation and co-operation with the labour unions.

35. The lantern lectures on hygiene as aforesaid, produced good results in respect of neatness and cleanliness.

36. No arrangement for education of workers has been so far made in the coalfield. Only a few schools of primary standard have been started here and there with accommodation for a limited number of boys of salaried workmen.

37. The desirability of provision for old age and retirement is out of question. It is a crying need of one and all of the industrial workers. As to its possibility it can be said that all difficulties that may be apparent in the beginning will disappear with the introduction of some such arrangement as has been the cases in other countries.

39. Desirable and possible.

VII.—Safety.

43. Existing rules are not enough. In the mining industry the number of accidents is on the increase.

44-49. Arrangements for prevention of accidents are very poor and should be improved by enforcement of regulation and "Safety First" propaganda.

50. Overworking, health, light and other working conditions are to be seriously considered in connection with the question of accidents in coal and other mines, as a large number of accidents said to be due to misadventure occurs in reality, for one or other of these causes.

VIII.—Workmen's Compensation.

The scope of the Workmen's Compensation Act and the scale of payment under it are quite insufficient at present. They should be improved. Compulsory insurance under Government control to provide against insolvency of employers is highly necessary.

IX.—Hours.

63. (ii) In practice the workers are to work much more than the time limited by law.

64. Miners generally work five days a week. Other workers six days and more.

65. If proper facility for work is given and hours of work are reduced and legally restricted, the efficiency of the workers will improve, more output will be obtained in less time, better supervision will be possible and the number of accidents will decrease.

66. Quite possible if there is proper supply of working materials.

67. Suitable and desirable.

68. Possible and desirable.

69. (i and ii) If shift system is introduced and the time limit is strictly observed a very short interval may be necessary for meal purpose only.

(iii) There are no regular holidays for the salaried workers.

70. There is no fixed day of rest (miners do not of course work on Sundays).

X.—Special Questions Relating to Women, Young Adults and Children.

90. The effect of the Act of 1923, restricting children from going underground, will not be fully realised until provision for compulsory free primary education has been made.

The existing certification provision is not proper but there is not much to complain against it.

91. The prohibition of women labour underground by gradual elimination will prove inconvenient in various ways.

(ii and iii) This gradual elimination will affect both the industry and the economy of the workers and will continue to be a cause of dissension and discontent for a long time. The best thing would have been to stop the women labour at a time with a notice for a reasonable period and to fix the wages of the workers by legislation.

XII.—Wages.

96. The average earning of miners (piece workers) is Rs. 20, between two, that is Rs. 10 per head. And the time wage earners' income averages between twelve and eighteen, that is Rs. 15 per month.

(ii) The daily rate of agricultural workers nowadays is ans. 10 to 12 per head (seasonal workers).

(iii) The mine workers of course get rent free houses in India, but considering the wretched condition of these houses no value should be attached to them.

97. (i, ii and iii) In the coal industry the first appreciable increase in the wages was given in the year 1921, as a result of a tremendous movement by the workers and the Trade Union Congress. The industry was also enjoying a fabulous boom at the time and living was abnormally dear—three times the pre-war cost. Afterwards, since the year 1923,—the wages have been again reduced year by year with the fall of the coal market although living cost has not in any way become cheaper like the pre-war period.

100. Eighty per cent of the workers are paid by contractors. Direct appointment and direct payment by the company are much more desirable. In the present condition it is self-evident that both the company and the contractors try their utmost to make the maximum profit at the sacrifice of everything else.

101. Wages are fixed by the employers more or less in an arbitrary way on the basis of prevailing rates.

102. No payment is generally made for overtime and Sunday work. In special cases a nominal reward is paid in some places.

103. No standard.

104. Owing to unemployment and overcrowding of workers advantage is taken to reduce wages off and on with the effect that the labourers become discontented and depressed.

105. The fixation of minimum wages by legislation is highly necessary for the labour and the industry as well.

106. (i) Fines are imposed on the workers in a most arbitrary and disproportionate way for slight negligence or negligence committed for inefficiency of supervision.

(iii) Fine funds are generally utilized for club expenses and for such other purposes as the agent or the manager thinks fit, but seldom for any welfare of the workers themselves.

(iv) Highly desirable.

107. Wages in the coal industry are paid monthly and weekly. Weekly payments are generally made up to date at the end of every week. But in cases of monthly payments, payment is usually made for one month on or about the 15th of the next month. Reports from many collieries are also received to the effect that payment is not made even after two or three months of the time of work. Workers in many cases are put to extreme hardship and difficulty for this reason. There have been many cases when recourse had to be taken to litigation for realisation of outstanding dues. Instances are not rare when workers having failed to bear the cost of litigation could not realise their dues at all.

(iii) It is highly desirable that some suitable legislation should be passed to regulate periods and prevent delay in payment, and also to realise outstanding dues, if there be any, without any cost on the part of the workers.

(iv) Unclaimed wages are credited in the cash of the company.

XIII.—Industrial Efficiency of Workers.

112. With the growth of experience in industrial works and adaptability to industrial life it is no doubt that the efficiency of Indian workers is improving to a certain extent.

113. Comparative statements as given in mining reports show that the average annual output per head of American, British, Japanese and Indian miners are 777, 221, 122 and 185 tons respectively. But if daily average output per head is taken into account for comparison, the Indian miners will not be found inferior to the British miners in any way. The daily average output of coal in Great Britain is one ton per head, while in India it is two tons per pair of a male and a female miners.

114. Inferiority in these respects in India certainly affect the efficiency of Indian miners.

It has been stated in the Mining Report that at Jamadoba Colliery the average output per head has become double (in 1927) owing to introduction of improved machineries. (Mining Report 1927.)

XIV.—Trade Combination.

117. (ii) The employed in the coal industry in India have got only this Association—the Indian Colliery Employees' Association. So far as regular membership is concerned, the organization on account of illiteracy, poor income of workers, large number of small and separate ownerships, distance from colliery to colliery and hostility of the employers, has not yet been able to achieve proper success. But the Association has already spread its activities over the most important coalfields in India, viz., Jharia, Katras, Nowagarh and Ranigunj coalfields. It has got its central office at Jharia and three branches in three important centres. And as a trade union body for all colliery workers its representative character stands undisputed.

118. (i and ii) From the condition of the coal trade it can be said that the employers' organizations have not been able to render any appreciable good to the industry, commercially or in any other way. The activities of these organizations, as may be evidenced from their reports, have been generally confined to opposition of labour legislation, labour movements, and to such other questions as relate to inter-industrial complications. But so far as efficiency of labour, efficiency of industry, regulation of production and demand and such other questions of vital importance to the industry are concerned they are left to the individual firms, who generally enter into unequal competition, undermine the industry, and depress the labour.

The main object for which the Indian Colliery Employees' Association has been started is to improve the conditions of the workers consistently with the improvement of the industry. It has been trying its best to secure the help and co-operation of the employers to fulfil its objects, but the employers in spite of repeated requests have refused to recognise the union to the detriment of the interest of both the labour and the industry.

119. The Indian Colliery Employees' Association has got certain objects in view for betterment of the labour condition.

It has been generally trying to fulfil these objects. Besides, it undertakes to redress the grievances of hundreds of individual workers in cases of realisation of outstanding dues, compensation for accidents, and various acts of highhandedness by the management. It carries on propaganda with the help of lantern slides for social and physical improvement of the workers. Further, it has been systematically dealing with the legislative questions of the mining workers in India.

120. The Indian Colliery Employees' Association was first started in the year 1920. As a result of highhandedness by a European colliery manager towards some employees, there was a great stir and excitement amongst the workers in the Jharia coalfield and the colliery workers organized this union on the lines of pure trade union movement.

(ii) The workers are well disposed towards the union. They fully rely on it as their representative body.

(iii) The employers were in the beginning indifferent to the labour union, but on account of its growth in activity and importance have become hostile to it.

121. Owing to political conditions of the country and apathetic attitude of the bureaucratic government towards the labour movement, the Trade Union Act has not yet been utilised to a great extent. There are some defects also in the Act from the labour point of view. The restriction on the funds of unions as stipulated by the Act appears to be unnecessarily overstrict.

122. (i) There are no negotiation boards consisting of employers and employees' representatives. The employers' bodies do not recognise the employees' unions. The Indian Colliery Employees' Association in case of a grievance at present, first approaches the management for a compromise, but failing that takes the help of law.

(ii) All attempts at co-operation between the employers and the employed have so far failed for arrogance and obstinacy of the employers.

(iii) The employees of State industrial concerns are not allowed to join the general trade union movement on grounds of political questions.

XV.—Industrial Disputes.

123. (i and ii) During and after the great war, owing to abnormal increase in living cost, there was a series of irregular industrial disputes in the coalfields for a demand of higher wages. But the demands were not conceded to, and the strikes, irregular and unorganized as they were, subsided without any effect. Afterwards, in 1921, a general strike was organized for the same purpose at the time of the Second Session of the All India Trade Union Congress, held in Jharia, and after four days of the strike the employers declared a general increase of 50 per cent. of the wages of all workers without any formal arbitration and the strike terminated. Since then no organized strike has occurred. But stoppage of work by one or another section of workers here and there for such grievances as low wages, fines, and corporal punishment, delay in payment and highhandedness of various descriptions, has been of frequent occurrence in the coal industry.

(iii) Settlements in some cases are effected by pressure of the employees with the help of the Association, but in other cases the workers are coerced into submission by lock-out and intimidation.

There is no regular method of negotiation for settlement of disputes, as the employers do not even recognise the Employees' Association.

125. The Trades Disputes Act was declared by the entire labour force as a piece of re-actionary legislation. It was passed in the Assembly in the teeth of opposition by the labour member and other nationalist leaders. It is the general impression amongst the labourers that the Act was passed solely at the instance of capitalists to stifle the labour movement in the country. The first part of the Act (establishment of tribunals for investigation and settlement of trade disputes) if administered in proper cases may be of some use to the industry and the labour, but the other two parts of the Act are out and out inimical to the labour movement.

126. The Government of India are themselves very big employers, and they are not much different from other employers in their attitude towards labour unions and industrial disputes. The case at Golmuri may be cited as an instance in point.

XVII.—Administration.

133. The nature of franchise and the representation of labour to the Legislative bodies that obtain in India under the present constitution are clear enough to show that labourers have been altogether debarred from securing any material benefit through legislation. Provincial Governments are ever silent over labour questions. The Central Government, however, have from some time past begun to take up labour questions through the pressure of the nominated labour member and the International Labour Conference.

140. The inspection staff is inadequate. The method of inspection should be improved, as there is a widespread impression (not altogether unfounded) that false prosecutions are conducted against the poor workers at the instance of the management. False pleas and evidences are reported to have been many times put forward by the management to contest cases under the Workmen's Compensation Act.

Inspectors should be increased in number, and some of them at least should be chosen by labour unions.

XVIII.—Intelligence.

146. Accuracy in figures of statistics is essentially necessary and can only be obtained by regular inspection and investigation conducted in collaboration with the labour unions.

Mr. B. MITTER.

INDIAN COLLIERY EMPLOYEES' ASSOCIATION.

I.—Recruitment.

(2) Miners generally go back to their native places almost three or four times a year for the purpose of sowing and harvesting, and on the occasion of marriages, child-birth and other festivities.

Some time past the migration of labour within the coal field area was very frequent. Besides other causes of such changing of places, viz., stoppage of mines, reduction of wages, bad working conditions, fines, etc., the main cause used to be enticement of the neighbouring colliery owners who during the flourishing condition of the industry often promised better wages and facilities.

Very recently, owing to the depression of coal trade, the practice of offering more wages, etc., has been stopped with the result that labour force is more or less settled in collieries.

(3) Recruiting is generally done in the following manner :—

- (1) Raising contract method.
- (2) Labour commission method.
- (3) Zamindari method.

In the latter case, where the colliery company own the zamindari rights of the village, obligatory method, or in other words, forced recruitment, is generally adopted.

Under the first two methods of recruitment a certain amount of obligatory method is practised. The raising contractors or the labour commission contractors generally employ the headmen of the villages as sirdars who are either monthly paid or paid commission on coal raised. These sirdars are paid advances, who lend a certain portion of the advance money to the miners of their respective gang. The miners are therefore kept under the obligation of these sirdars until the loan money is paid back to the sirdars.

To do away with all these evils, I am of opinion that a recruiting agency should be established.

(4) With the advancement of the modern industry, other industries such as agriculture, weaving, etc., have been considerably affected. And, apart from this, the labour force has been much morally degraded by coming in contact with men of bad characters and criminals, and have become addicted to drinking, gambling, etc. To remedy all these evils and vices, the labour should be given free compulsory education, good wages, good housing accommodation (sufficient to put up with families together with the arrangement to keep their privacy), recreation, security of service, and higher standard of living.

(7) With the closing down of mines and restricted output, due to the depression of coal trade, and with the introduction of machine mining and other labour saving mechanical appliances, the extent of unemployment has become very great, and owing to the growing number of unemployed workers the employers have been able to make a considerable reduction in the wages of labour. The question of unemployment have also been keenly felt by skilled labour, Indian subordinates and clerks, etc.

Evidences are not rare where employees have been dismissed without any rhyme or reason, and a change in the management is very often followed by a complete change of staff by either dismissing them or by putting them under retrenchment.

The idea of such changes is obviously to reduce the establishment with a view to curtail the cost per ton and thereby to earn good name in the management. This system in fact goes very little in favour of reducing the cost per ton, but it does a great deal to create unemployment and over-work to the poor workers.

There are instances where Indian subordinates are pushed out to make room for either Europeans and Anglo-Indians. To remedy all these evils strict service rules should be enforced.

I am of opinion that unemployment bureaus should be established on the lines suggested in the Washington Labour Conference, 1919.

(8) Regarding labour (turn over) no concerns keep such record. But in case of skilled labour it may be said that it is regular in its employment, and the average duration of employment amounts to few years.

A miner generally works five days in a week, covering nearly 42 to 50 hours a week, but if his time lost underground waiting for tubs is taken into consideration the average working hours probably exceed more than 60 hours a week.

Besides other causes of absence from the collieries such as sowing, harvesting, child-births, marriages, etc., a miner occasionally absents himself owing to his own and family sickness.

By summing up all these it may be safely assumed that an average miner only works four days a week. The reason for not turning up to mines more than five days a week may be attributed to the great amount of energies being lost by miners in mines due to ill-ventilation, shortage of tubs, etc.

II.—Staff Organisation.

13. The relation between staff and workers cannot be called a good one since it is the policy of the mine owners, especially during this dull state of trade, to extract maximum work at the minimum cost. Causes of friction and grievances of workers are many, but such causes very often go unprotected. Where the mines are run by contracts the managers never interfere with miners' causes of grievances.

There is no works' committee in the mining area.

14. Timekeeping is kept by clerks appointed for the purpose as per Mines Act, but correct check on the number of miners descending and ascending the mines is not possible as in many cases mines having numerous openings are scattered all over the area. Miners are paid by the numbers of tub of coal cut and filled. Payments are generally made on the production of chits granted by the underground munshis, by the cashiers or pay clerks, to the miners either directly or through sirdars. The miners are paid weekly and in some collieries daily in the RaneeGUNJ Coal Field.

15. A big percentage of mines are being run by contract system. A raising contractor generally pays all costs of raising coal, including winding, hauling and loading into wagons, and who in their turn are paid by the mine owners on the tonnage of coal raised.

The raising contractors are interested in raising coal only, and they endeavour to win coal in the easiest possible way, sometimes in disregard to the safety of mines. Although there are supervising staff to look after the safety of the mines they are generally engaged in helping the contractors for maintaining a good output with the result that very little attention is paid to safety.

Effects.—The contractor is concerned in making a living out of his contract. The company, as a rule, lower the rates as far down as they possibly can, allowing the contractor a small margin of profit, with the result that it is the poor labourers and miners who have to contribute, rather heavily, to the pocket of the contractor, being doubly exploited, first by the company and then by the contractor. The sources of income of the contractor : (i) the lowering of the wages of labour. The labourers have to work as they cannot go away, being bound by "Dadans" (advance); (ii) by making them work extra hours to save Hazris ; (iii) by little favours from supervising staff in the payment of bills for work done or partly done ; (iv) from surplus coal raised. The contractor is paid on tonnage raised whereas the miners are paid per tub. The capacity of a tub is calculated on a basis of so many hundred-weights to a tub. The miners are made to overload the tub as much as possible, otherwise their tubs are cut. The difference between the calculated weight and the actual weight adds an extra income to the contractor. Moreover, the miners are penalised a full tub or a part thereof for the under-load of a basket or two of coal but get no recompense for a heavy overload or surplus.

III.—Housing.

Ventilation.—The ventilation leaves much room for improvement. The colliery owners claim of adequate and sufficient ventilation of the dhowrahs is not proved by facts. There are no windows in the rooms except in a very few collieries, when the door is shut, as it will be during night or on a summer day, the miners in the room hardly get fresh air. Cases of suffocation due to inadequate ventilation are not frequent. The arched dhowrahs (built back to back) which appear as so many tomb-stones, do not afford proper accommodation and ventilation to the inmates, and the smoke from the cooking place in the attached arched verandah makes the place absolutely uninhabitable. Besides arched dhowrahs there are several types of dhowrahs, some of which are habitable but filthy. But in all cases no separate place has been provided for cooking purposes.

The owners claim that they provide better accommodation than those at villages, but it is not a fact. Although the labourers are provided with pucca dhowrahs, and the village huts are kutcha, the latter provides more sunshine, air and accommodation and the surroundings are much cleaner than any colliery dhowrahs. The village huts are much more comfortable and sanitary, and labourers prefer them every time to colliery dhowrahs.

The housing accommodation is very poor in RaneeGUNJ Coalfield.

In Hingir Rampur Coal Company's Rampur Colliery (C.P.) no housing is provided either for miners or skilled labour. The miners build their own houses for which a piece of surface land is generally acquired by the company.

The housing for other employees and subordinate staff is not satisfactory, and leaves much room for improvement, the quarters not being repaired and surroundings and drains not being kept clean.

22. Compound walls should be put up to maintain the privacy of each family, as these have a great bearing upon the formation of good moral character.

A miners' settlement in collieries is generally a refuge for absconders and old criminals. Arrangements should be made to keep such persons away from the camp. Verification roll should be introduced.

IV.—Health.

24. The medical help given to the labourers are quite inadequate, and in many collieries the medical department is not properly equipped, and in most cases understaffed.

The services of efficient and qualified doctors are only requisitioned in case of sickness among superior staff.

There are no segregation huts for patients suffering from infectious diseases.

26. Excepting a few collieries there is no drainage system for cleaning filth. Refuses are generally thrown near labourers quarters or dhowrahs (as there being no transport arrangements for such refuses) thus making the locality insanitary.

V.—Welfare.

32. No extra accommodation is given or arrangement made at the time of child birth. The colliery owners should pay also some sort of allowances to female labourers when they reach an advanced state of pregnancy instead of employing them on hard jobs, e.g., carrying coal, etc. Medical help should also be given to such female labourers.

Sick allowance should also be given to all labourers during their sickness.

No encouragement is given to introduce some sorts of games for the recreation of the labourers and other employees except in one colliery where annual sports are being held and in another where a football team is run for the clerks and subordinates. It is no wonder that gambling and drinking are so prevalent in labourers' camps.

The creche system for the workers' babies should be introduced.

No facilities are given to labourers' children for education ; since the children are prohibited from entering in mines or to do any kind of work in mines it is advisable that some arrangement should be made to control and educate these children.

37. It is essential that some arrangement for providing old age pensions for all kinds of labour, including clerks and subordinates, be made.

39. A welfare fund should be established. A tax of few pies if levied on the tonnage of coal despatched would not be a burden to the colliery owners.

VII.—Safety.

Rules and regulations enforced under the Mines Act are quite adequate. The supervising staff who are responsible for the carrying out of such rules are generally engaged in obtaining a good output and thus very little attention is paid to the strict observance of rules. A large percentage of accidents therefore occur due to the negligence on the part of the supervising staff and it is essential that regular and periodical inspections should be made by the mines department to minimize the number of accidents.

It is further suggested that separate staff should be kept only to look after the safety of the mines and the workers should be given some educative lectures on "safety."

In some cases if proper facilities in the way of good working places and supply of tubs are given to workmen there is every likelihood that the number of accidents would be reduced. The cause of such accidents due to misadventures on the part of workers is partly attributed to fatigue and hurry because of the fact that miners often get tired of sitting down in the mines waiting for tubs and suitable working places, and when they do get them, a very little margin of time is left for them to cut and fill tubs sufficiently to earn a living wage within the shift period.

VIII.—Workmen's Compensation.

51. The present Act does not afford adequate protection to workmen or their dependents. A greater percentage of accidents are reported by the employees as misadventures on the part of workmen to evade the liability for compensation where the management themselves are responsible for the breaches of laws. It goes without saying that it becomes easy for the management to prove such misadventures by furnishing witnesses from people directly controlled by them. Such witnesses are generally guided by their employers as the application of their own free will is impossible at the risk of their services.

It is suggested, therefore, compensation should be paid in all cases of fatal accidents resulting in deaths and permanent disablements (necessarily including those reported under misadventures) arising out of company's business or trade.

I am of opinion, therefore, that compulsory insurance system should be enforced.

IX. Hours.

63. The mine owners claim that the average working hours for labourers vary from 42 to 52 hours a week. But they always overlook the considerable amount of miners' time spent in sitting down underground waiting for tubs. It is partly due to the defective transport arrangement and partly due to insufficient tubs. A miner generally works 5 days a week and other workers are at work for 6 days a week. In many collieries, firemen, winding enginemen, etc., work 12 hours a day. It is therefore evident that workers are made to work more than the time limited by law. Labourer has to work extra time in cases of any breakdown, etc., and also for loading rakes, etc.

65. The effect of restriction has resulted in the decrease of wages of some labour. The employers do not pay any allowance or wages for the resting day.

67. The enforcement of law relating to shifts will greatly improve the mining industry as this will bring in discipline among the workers. The value of time too will be better realized by all classes of workers.

68. It is only possible provided all facilities to workmen are given. It will have a beneficent effect on the domestic condition of a worker who will have more time in preparing his meals, etc.

69. If shift system is introduced no interval will be necessary except a few minutes for taking meals, etc.

Under the present system, the interval between workers' morning and evening meals is very great, extending up to 12 to 13 hours which greatly tells upon the health of the miner.

X. Women, Young Adults and Children.

The prohibition of women labour underground will have a beneficent effect to the industry as well as to the labour itself and this can only be achieved if miners' wages are increased sufficient to maintain their families.

Steps have already been taken to reduce the number of female workers underground, but it is much to be regretted that up till now no arrangement has been made by the employers for these unemployed workers who eventually fall back upon the male workers to share their living. It is only humane therefore, that the wages of the male workers be increased. Discontent among the workpeople is becoming very acute but the mine owners are apparently waiting till the fusion point is reached.

XII. Wages.

96. (i) The average earning of a miner and his carrier is from 13 to 14 annas per day, which at the rate of 5 days a week comes to about Rs. 17-8-0 a month. The earning of an individual member, therefore, is Rs. 8-12-0 per month. A miner with his carrier is generally engaged in piece work and gets 6 to 7 annas per tub of coal cut and filled. An average miner with his carrier cuts two tubs of coal a day. It is evident, therefore, that a miner barely earns his living wage. Other labourers earn from 9 to 10 annas a day which at the rate of 6 days a week comes to about Rs. 14 to Rs. 15 per month. It can be seen, therefore, that the earning of a miner is almost half the earning of other workers. The daily rate of agricultural workers is from 8 to 10 annas per day, which comes to Rs. 15 to Rs. 18 per month. This obviously shows that agricultural areas afford a great enticement to miners and a miner usually leaves the colliery during the sowing and harvesting season. Further working in agricultural areas is much more cleaner than working in mines, the latter also involves more risk. It is clear, therefore, that mining industry is not attractive to the miners as far as the wage earning is concerned during the sowing and harvesting seasons.

(ii) Besides the wages earned, a miner gets free accommodation (where he is not at all comfortable) and free coal, but all these do not add an appreciable value to his earning, especially in this province where every labourer has a home and he gets his fuel from surrounding jungles.

99. No payment is done in kind, except occasionally when some gangs of miners are given some money to have a feed and drink to induce them not to leave the colliery.

100. A large percentage of workers are being paid by the contractors, and as such, the workers are doubly exploited. It is advisable, therefore, that workers should be paid direct by the mine owners.

102. As miners are paid on piece work, they cannot claim any overtime payment nor their time lost in underground waiting for tubs is in any way compensated. Only skilled workers sometimes get overtime allowances. No payment under this item is made to clerks and other subordinates, although they are required to work sometimes more than 12 hours at a stretch.

104. The labour supply has not been greatly affected due to the decrease of wages owing to the growing number of unemployed workers. The reduction of wages, however, has brought a great discontent amongst the workers.

105. It is essential that minimum wages are fixed by legislation.

106. (i) Imposition of fines is usually done at the sweet will of the management and in some cases fines are so heavily imposed as to nearly cover a week or fortnight's wages. Cutting down of miners tubs for underloading is being done indiscriminately so much so, that in some cases an innocent miner is penalized for the underloading of tubs by another miner working in the same section and the real offender escapes detection.

(iii) Fines are generally utilized for the pleasure purposes of the superior staff, no such funds are utilized for the welfare of the workers.

As a result of the cutting down of miners tubs a good amount of surplus coal is obtained. The outcome of such surplus coal either goes directly into the pockets of the contractors or to the pockets of the superior staff in the shape of commission.

(iv)—*Desirable.*

110. Miners go home whenever they like as they are on piece contract work. Other workers get leave without pay to the extent of one month in a year.

Clerks and other subordinates get leave with pay for about 15 days a year in some collieries.

MR. SIBA KALI BOSE, INDIAN COLLIERY EMPLOYEES' ASSOCIATION, JHARIA.

Recruitment.—The method of recruitment, in most cases, approach very nearly and is similar to the method of Indentured labour. The miners are given money as *Dadans* (advances) which is, as a rule, recovered from them. Unless and until this advance is recovered, the miners have to work for that particular Sirdar or Contractor. The savings of the miner, over and above his daily needs, are so meagre, that it is practically impossible for him to repay the advances. It is noteworthy, that very few miners go away without repaying their advances.

A Central Public Employment Agency should be established, with headquarters at Jharia and branches in different coalfield centres, for the purpose of recruitment of labour—skilled and unskilled; thereby, the whole thing will be concentrated, minimising the cost and centralising the recruitment work. As a parallel to this, the Unions of English and American coalfields, furnish all the labour to the collieries.

Unemployment.—The introduction of modern labour-saving mining machines coupled with the depression of coal trade and consequent restricted output, has put many labourers out of jobs. This adverse effect of unemployment due to the above causes, is felt more keenly and is more acute amongst the skilled labour and educated employees. On the contrary, high-salaried European supervising establishment has gone up considerably. The hue and cry of increased cost, which is most prominent amongst the excuses of the mineowners, is traceable more to this, than to any other cause.

Housing.—The housing, as provided, is insufficient and unsuitable. The rooms are, as a rule, overcrowded. The claim of the mineowners that they do not find any difficulty in making the labour utilise what accommodation is provided, is not untrue. But that does not mean that miners are satisfied. Has any owner, as yet, offered a miner and his family two rooms in place of one, and have met with a refusal? I do not advocate the system, as it exists in France, where a miner and his family are given a bungalow and an attached garden, but surely the miner and his family, would like

to have a room separate from that of another family, instead of having to share the same room with others. These *Dhowrahs* have no windows, so that when the doors are shut, as it will be during the cold of the night or the heat of the day, one wonders how the air will circulate. If one compares the *Dhowrahs*, with the bathrooms of the *Burrahsahibs*, one would certainly choose to live in the bathrooms than in these pigsties.

Sanitation.—Sanitation is far from satisfactory, and leaves much room for improvement. Surroundings are dirty and unclean; arrangement for sewage removal is poor; drains where they exist, are not cleaned; water-supply is meagre. No arrangements for bathing or washing; latrines are practically non-existent; as a result thereof, periodic epidemics are frequent.

Health.—General health of mining labour is very poor and does not, in any way, compare with that of the workers of other countries. This is chiefly due to the lack of nourishing food and for the simple reason that the earning of a labourer does not, and under the present circumstances cannot, afford a generous dietary. Medical facilities, as provided by the owners, are far below the actual needs of the mining colony. Maternity benefits and child welfare, if properly and wholeheartedly introduced, will be easily availed of, by the persons concerned. There should be a regular uniform system of sick allowance instead of the arbitrary method of distribution, as it exists to-day. Introduction of recreation facilities, proper inspection of food supplies, checking of adulteration, prohibition of intoxicating drinks and drugs, rigorous application of working hours limitations, will go a long way to improve the general health condition of the mining labour.

Education.—Facilities for general education in industrial areas, hardly exist. This should be encouraged by providing proper institutions. Facilities thus provided, will be the only source by which the standard of living of labour can be raised and more productive work can be had from them.

Hours.—Though the Mining Regulations limit the hours of work of a miner to 56 hours per week underground, in practice, there is no limitation to his hours of work. He goes down the mine in the morning and will not probably come out till the following morning, having to work at a stretch 26 to 30 hours. He makes the mine his home, sleeping in the mine as best as he can, his "Kamin" (carrier) carrying his meals back and forth. Not that he likes to be deprived of the fresh air or the bright cheery sunshine, but because he cannot get the proper supply of tubs and that in time. Cases are still plenty, where the miner will not be out of the mine for days together. Adequate arrangement should be made to supply "empties" in time, so that the miner can load his share and come out to the surface more often. A little thought and consideration and better organisation on the part of the supervising staff can ensure this.

Staff organization.—The system of organization and administration is all in favour of the employers. The staff is selected without any regard to qualifications. Racial discrimination is predominant; favouritism plays a great part; dismissals are frequent depending upon the whims of the superior staff. There is no appeal to these unjust decisions; the orders of the officials are law and are final. There is no security of a job. One has to work longer hours without any overtime or extra remuneration or fall into the bad grace of the boss, with the ultimate result of dismissal on the most frivolous grounds. There is no system of promotion. If there be any, favouritism carries the selection. Regular increment of wages are unknown amongst subordinate staff. No leave is granted on Sundays or on festivals. System of casual, privilege or sick leave is very irregular and insufficient. Filthy language and dirty abuses form a big percentage of the limited vocabulary of the superior staff. Corporal punishment is resorted to without rhyme or reason. Fines are imposed on the least offence, in many cases, just to vindicate authority. The amount of fine is, sometimes, so heavy as to have no relation to his month's earning. If the officer wants to raffle his old car or gramophone, the subordinates must buy the tickets or court the displeasure and consequent repression in the hands of his officer.

On the contrary, the European establishment gets the cream of the benefits. The majority of them are on agreement service; their allowances are liberal; their jobs secure; leave plenty, and their privileges unrestricted. All engagements of superior and other staff are made without advertisements thus keeping better qualified men and the public in the dark about these vacancies, which are generally filled up, with the "pets" of appointing officers. Europeans and Anglo-Indians without any tickets whatsoever, are preferred to qualified Indians holding mine manager's tickets, even though, a European will be paid three or four times the salary of an Indian. A case is on record, where an Indian with British Mine Manager's Certificate and Board of Trade Certificate, coupled with years of experience in Scotch as well as Indian mines, was turned down in favour of a non-ticketed man for an Overman's job in a Railway Colliery. Whenever any changes take place in the

management, there is a tendency of a similar change taking place in the staff and contractors. Old hands are got rid of on the least excuse while new hands—the favourites of the incoming manager—get in. Cases are known where these favourites follow the manager from colliery to colliery.

From these, one can understand, what the relation is likely to be between the staff and the rank-and-file. Where methods are autocratic, justice is non-existent and fairness is guided by self-interest, the relation can hardly be called pleasant. The superiors, living in palatial buildings, in the style of their royal majesties, steeped in comforts, that can well be envied by the General Managers of England and America, drawing liberal car allowances and attended by seven or eight servants all paid by the company, can surely afford to look down upon the down-trodden clerks and overmen, etc., and begrudge them little favours, lest these might be construed as weakness on his part or generosity towards his subordinates. Can one imagine a single civilised country in the whole of Europe or America, where the distinction in salary and privileges is so great between the highest and the lowest, one drawing Rs. 2,500 and the other Rs. 15 only? Is it justice, that a subordinate should be working his guts out and not get his living wage, and the other, swanking about, showing his authority and giving parties and receptions and earning (salary and extra) nearly as much as that of the Governor of a Province?

Whenever reduction of staff is made, due to the dull state of the trade or through any other causes, it is the lowest paid staff who are got rid of and not one of these big men. Is it any wonder, why no Works Committee or Unions on the English or American lines are welcome? Does it appear strange why this fraternity of superior staff is so strenuously opposed to organized labour? That "I" is the first person (in grammar), and all for me and none for you, is nowhere better exemplified than in the colliery districts; yet these would be the very persons to shout their lungs out, when the labour would ask for an increment of one anna a day over their present rates.

Contractors.—The contractors are a very necessary item in the management of a colliery. They not only afford the supervising staff more leisure and freedom from worries by taking the whole intricate burden of raising the coal for which the management is paid for and kept, but also satisfy the superiors in more than one way. The ideals of Co-operative Societies are more than fulfilled here. It goes one step further. In Co-operative Societies the subscribers share the profits, but cases are not unknown where the management gets the lion share of the profits of a contractor—a share for which he is not at all entitled to. One might as well ask, why does the contractor agree to part with his hard-earned money, got as a result of exploitation? He has to—for his own existence. If he does not, he will be harassed, his bills will be held up, impossible conditions will be imposed, difficulties will be placed in his way and his rates will be reduced. On the contrary, by satisfying his supervisors he will have a smooth sailing and he will make his living. Cases are well-known where favourite uneducated *Chaprassis* are put up as contractors, because they form mute agencies whereby to fill one's pockets. The work in an organized colliery goes on by itself, because the highers-up lend their support to the cause; for self-interest requires it. Examples are not lacking, where the contractor himself never visits his working place, but has practically retired, living in comfort in England. Can one answer why respectable men in the coalfield are refused contracts offered at reduced rates and backed up by large security money, when these very contracts will be given to other parties whose credentials are a little hazy? Do the managing agencies ever bother their heads about these facts or make any enquiries? They are kept in the dark; so are the shareholders. Supposing the existing rates are kept intact and labour given a little increment, would it not be possible to reduce the margin of profits of the contractors? Can the coal industry not follow in the footsteps of Henry Ford, who increased the rates of his labour, even in the face of trade depression? Satisfied labour will be an asset and not a hindrance to the trade; but, to be effective, this satisfaction or increment should come before the symptoms of discontent get beyond the curable stage and are at its very infancy. Relation between superior staff and labour must improve. Racial discrimination must be abolished. Recognition of qualification must replace favouritism. Justice and fairness must be more than lip-deep.

Trade combination.—The employers are organised in two powerful but separate combinations. *First*—The Indian Mining Association for the European-owned Collieries generally, and *Second*—The Indian Mining Federation for the Indian-owned Collieries exclusively. Though there are clashing of interests between the two organizations, they are alike in their stern opposition and non-sympathy towards the labour movement. The only labour organisation in the field, so far as collieries are concerned, is the Indian Colliery Employees' Association. This body is recognised by the Government and is affiliated to the All-India Trade Union Congress, but as yet it is not recognised by the employers.

The attitude of the employers is markedly hostile to this organisation. Members of the Association are harassed and threatened with disciplinary action and in one case, with curtailment of privileges. In fact, this organisation, though established in 1920, is still going through the same privations and persecutions that dogged the early career of English trade unionism. The officials of this Employees Association are not allowed to collect subscriptions, in some cases they are prevented from entering the colliery. One can sympathise with the owners for this opposition to any organised labour union. The owners themselves would want to be combined together into a powerful association, so that they can offer an united front prepared for any concerted action and ready to pounce upon and nip in the bud any labour activities that might tend to interfere with their autocratic regime or force the hands of the proprietors to part with a portion of their accumulating profits.

Wages.—There is no grievance so outstanding, from the point of view of labour, as the question of wages. The average earnings for a miner and his wife are so low as to be quite insufficient to meet their daily needs. The wants of these men are very few indeed. They do not want a life of luxury, but expect enough to fill their stomach with the plainest of food and clothe themselves against cold and to cover their bare bodies for the sake of decency.

Whenever the question of wages are brought in, reference is made to trade depression; yet in the face of this depression of trade, the salaries of superior staff have gone up, the profits of intermediate agents are just the same as before, and the companies are still making more than their due share of profits. The rates for contractors have been reduced, but in no case has it been followed by an all-round reduction in wages. This reduction in rates has invariably cut the wages of labour, for they are the mute suffering creatures who cannot raise their voice in protest against injustice, nor can they oppose it for their capacities are lacking.

Huge sums are spent on recruitment; the migratory character of miners is deplored; the fact that miners are mainly agriculturists, is told to the world from housetops. But, has anybody ever thought that, by increasing the wages of labour to bring it to the level of living wages, they can sufficiently induce them to be more or less permanent?

That the labour is mainly agriculturist and works in the mine, just to meet his extra needs, is solely due to the fact that the colliery wages are not sufficiently attractive for him, nor is it enough to meet his daily needs, so that he is forced to fall back upon agriculture for his biggest of all needs, i.e., fooding. Moreover, all labourers do not own agricultural lands. They simply leave their mine to work for others—to till the ground, sow the seeds or harvest the crop—in exchange for ready payments in cash or kind—which is higher and much more attractive than colliery rates.

If the rates are made sufficiently attractive, a little more than what the miner can get from agriculture alone, it will save the companies much money in more than one way. This increment, will, in all probability, not touch the pockets of the owners at all. For they will be saving heavy sums of money from various sources, which are now necessary items of mining costs. A permanent labour force, will be conducive to uniform high raising, which alone, will tend to decrease the cost considerably. Recruiting cost will be a thing of the past. The mines can be worked departmentally thus saving the huge profits now enjoyed by middlemen. Labour will be more content, organisation will be better conducted, production will be more and steady, cost will automatically go down and the prosperity of the industry, as a whole, will be assured.

CHAIRMAN, JHARIA MINES BOARD OF HEALTH, DHANBAD.

III.—Housing.

14. (i) All collieries in the Jharia Field (as distinguished from the Mugma or "Lower" Field, vide 14 (iv) below) are amply and efficiently equipped with approved types of houses for colliers. Their design, construction, ventilation and general amenities are governed by the Jharia Mines Board of Health Bye-Laws (Part I, Sections 1-23) (see 15 (ii) below). There are certain classes of worker, however, who prefer to live in their own villages and walk, often several miles, to and from their work; apart from these, every labourer is provided with accommodation.

Take 15 collieries, of which 5 should be those best equipped, 5 those worst equipped, 5 those normally equipped, and show :—(a) Maximum number of workers on any date ; (b) average number of workers throughout the year ; (c) number of houses of each class provided.

I.—Five Best Equipped Collieries.

Colliery.	(b) Maximum No. of workers.	(b) Average No. workers throughout the year.	*W.L.	*O.W.L.	(c) No. of houses of each class provided.				Rcd Licence.	Total.
					Special Licence.	Blue Licence	Standard.	Others.		
Bhowra ..	1,500	Not available	733	—	—	6	320	—	—	1,059
Jamadoba	2,147	" "	755	48	—	19	360	42	—	1,224
Pure Jharia	275	" "	168	53	5	30	—	—	—	256
Kustore ..	2,505	" "	267	412	97	121	395	—	—	1,292
Loyabad ..	2,699	" "	227	149	36	10	365	110	—	250

II.—Five Worst Equipped Collieries.

New Barwabera	104	Not available	—	—	—	—	10	—	—	10
Sonardih ..	28	" "	—	—	—	—	17	—	—	17
(No. 106)										
Angarpathra	545	" "	—	—	—	88	1	—	—	89
(No. 137)										
Kantapahari	136	" "	—	—	—	—	20	—	—	20
Kesolpur ..	25	" "	—	—	—	20	—	—	—	20
(No. 128)										

III.—Five Normally Equipped Collieries.

Gopalichuk	1,247	Not available	118	55	—	21	132	—	—	326
(West)										
Ena ..	575	" "	158	—	30	18	47	—	—	253
Bhutgoria ..	700	" "	77	21	13	89	2	—	—	202
Kirkend ..	377	" "	143	—	31	—	49	—	—	223
(No. 196)										
Central Kujama	210	" "	44	22	28	11	53	—	—	158

Note.—(1) *White Licence : *Concession White Licence. (The various types of licences are described below.) (2) In the case of (a), it is difficult to ascertain the maximum number of workers on any date, but I have given figures from the returns received for the week ending 9th March, 1929, in which the maximum average number of labour force was shown this year.

(d) Number of labourers not accommodated in the mines. This information is not available.

The following are the various types of licences granted by the Board in respect of houses provided for colliery labourers :—(i) White licence ; (ii) concession white licence ; (iii) special licence ; (iv) blue licence ; (v) red licence.

To take these seriatim : (i) *White licence* is granted in respect of those houses which conform in every way to the minimum standards laid down by this Board in Part I, Bye-laws 4-8, prescribed under the Bihar and Orissa Mining Settlements Act, 1920. These standards briefly stated are as follows :—Floor space, 100 sq. ft. ; air space, 1,000 c. ft. ; width, 8 ft. ; average height, 7 ft. ; plinth, 1 ft., above ground level.

Each house must have a verandah with a minimum width of 5 ft., a door with a doorway measuring 5 ft. by 2 ft., and adequate and independent ventilation. The block of houses must also contain not more than ten rooms in line or 20 rooms back to back, and the distance face to face between two blocks must be not less than the total heights of the two buildings. Each block must bear a distinctive mark, and each room in the block a serial number, placed on a plastered surface.

(ii) *Concession white licence* is granted to houses which differ from the standard specifications in one or two minor details falling within the concessions sanctioned by the Board from time to time, e.g., in cases :—(a) Where a block has a floor space of 100 sq. ft. but a cubic capacity of only 900 c. ft. ; or (b) where a block has the requisite cubic capacity but a floor space of 95 sq. ft. ; or (c) where a block has a width of 7½ ft. (as against 8 ft.) but possesses the standard floor space and cubic capacity ; or (d) where there are more than 10 rooms in line or 20 rooms back to back ; or (e) where the distance between the two blocks is little less than the total heights of the two buildings, etc.

A concession white licence is not, however, granted in respect of new construction. It is only in the case of remodelled houses or houses in existence prior to the introduction of the Housing Bye-laws that this form of licence is granted ; and that, too, when the expenditure involved in bringing the houses quite up to standard would be excessive and unreasonable.

(iii) A *special licence* is granted to existing houses with tiled roofs, which conform to standard specifications in all respects save that the slope of the roof is less than 1 in 2. The granting of such licences implies that this defect will be removed when the roof has, in the ordinary course, to be renewed.

(iv) *Blue licences* are granted in respect of those houses which require considerable improvements in order to conform to the standards laid down by the Board, but the question of carrying out such improvements is deferred to a future date. The original idea of the blue licence was to make a certain proportion of such houses every year into red licence houses (see next paragraph), thus maintaining a continuous programme of improvement.

(v) *Red licences* are granted to those houses which are required to be demolished within the next 12 months or remodelled to standard specifications in accordance with the housing programme of this Board, in which case white licences would be granted. In any case, it was understood that the licences would not be renewed in the following year.

General remarks.—The original date fixed by the Board for the completion of the housing programme on collieries was May, 1923; this was subsequently extended to 1926. Owing to the continued depression in the coal industry, however, the Board has been granting moratoria annually since that year, so that no housing programme is now really imposed on collieries, except (a) as regards new construction which is required to comply with the standard specifications, and (b) houses which get into a condition of disrepair and become unfit for human occupation which are not granted renewal of the licence unless they are first thoroughly repaired and brought into a habitable condition.

(ii) All collieries, oil mills, flour mills, etc., are owned by private firms. There are no Government concerns.

(iii) Nil.

(iv) In the Mugma or "Lower" Field, the Housing Byelaws mentioned in question 14 (i) above have not yet been applied. In the majority of these collieries there is no resident labour, the workers coming in from their own villages. In the few large collieries in this area, accommodation is provided by the management, or land is given to the workers to build their own houses. Elsewhere (see question 14 (ii) above) there is no question of workers providing their own accommodation.

15. *Nature of Accommodation provided in each Class.*—(i) The workers, not yet organized, have never been known to make demands. Their convenience has, however, been closely studied in drawing up the type plans on which the houses are built.

(ii.) The Byelaws, Part I, Sections 1–23, lay down certain standards which must be observed. Type plans are supplied to colliery managers when required.

Summary of standards.—(a) Floor space, 100 sq. ft.; (b) cubic capacity, 100 cu. ft.; (c) width of room, 8 ft.; (d) average height, 7 ft.; (e) verandah floor space, 40 sq. ft.; (f) verandah width, 5 ft.; (g) doors, 5 by 2; (h) windows; (i) adequate and independent ventilation.

Every house must be licensed. Licences are not given unless the standards are complied with. If labourers are found in occupation of unlicensed premises, the management is liable to prosecution.

The type of house most commonly found is that known as the "arched dhowra," built of cement concrete throughout, though many other types are favoured, including some two-storeyed buildings.

Owing to the depression in the coal industry it has not been found expedient to insist upon too close adherence to the standards laid down in the byelaws. The housing provided may nevertheless be described as eminently satisfactory on the whole.

16. Except in the case of those who prefer to live in their own villages (a small minority), workers are glad to avail themselves of the accommodation provided by the authorities.

17. No rent is ever charged.

18. Subletting is impossible and unknown.

Occupation of employers' houses by tenants in other employ is sometimes permitted by special sanction of the Board. Workers on one colliery may be housed in the buildings of a neighbouring colliery, or a shopkeeper may be allowed to use a "dhowra" for purposes of trade.

Eviction.—Loss of employment is *ipso facto* loss of accommodation. The question of eviction never arises.

IV.—Health.

19. *General health Conditions of Workers*—(i) *Figures of mortality. Birth-rate and infant mortality..*

Year.	Average daily Labour force.	Birth Rate.	Death Rate.	Infant Mor- tality Rate.	Cholera.			Smallpox.		
					Inci- dence Rate.	Death Rate.	Case Mor- tality.	Inci- dence Rate.	Death Rate.	Case Mor- tality.
1924 ..	126,231	16.95	17.34	213	5.31	2.71	50.97	2.43	0.9	3.56
1925 ..	112,950	22.43	15.93	194	2.41	0.92	38.09	3.33	0.17	5.24
1926 ..	99,916	21.32	15.14	199	1.31	0.37	28.24	4.61	0.27	5.86
1927 ..	95,901	20.9	14	165	0.66	0.13	19.05	7.78	0.30	3.88
1928 ..	95,553	22.27	16	171	1.33	0.33	27.27	7.79	0.25	3.33

(ii) *Infantile Mortality.*

Figures for the last 3 years for—

(a) *Mining Areas.*

Year.	Total No. of Deaths.	Rate.
1926 ..	433	199
1927 ..	330	165
1928 ..	347	171

(b) *Rural Areas.*

	1926.		1927.		1928.	
	Total No. of deaths.	Rate.	Total No. of deaths.	Rate.	Total No. of deaths.	Rate.
Tundi..	231	124	150	93	209	112
Gobindpur ..	287	132	251	137	268	120
Nirsa..	242	105	200	96	237	111

(iii) *Working Conditions*—(a) *At work places.*—Rarely are sheds found to protect surface workers from sun and rain.

Underground conditions are not very satisfactory. Most of the mines are hot and damp, so that continuous labour for hours on end is impossible. Many of the larger collieries are equipped with electric light.

There are no latrines underground and no proper method of disposal of dejecta. Where sweepers are employed below their services are unsatisfactory. (See question 22 (i).)

(iv) *Dietary.*—Wages are high enough to allow of a generous dietary for all workers. There is no shortage of food. The staple diet consists of rice, lentils (dal), vegetables, spices and oil (mustard, ginguly, mohua seed) with occasional meat—of the ox, goat or pig—and rarely milk and ghee. Sometimes maize or other flour replaces the rice.

(v) *Physique.*—Physique is almost invariably good, especially so in the case of Bilaspuris, Santals and Bowries. The Beldars, who usually work on the surface, are not so good.

20. *Extent of Medical facilities provided*—(i) *By employers.*—At every colliery there is a dispensary, its size and scope varying with the number of workers employed. A Schedule of Drugs and Appliances, set up under the Board's byclaws, indicates the minimum requirements which must be maintained. In some cases well-equipped hospitals are provided, capable of dealing with any emergency. Every colliery with 30 workers or more is compelled to employ a registered medical practitioner. Of the 215 collieries now working 36 have whole-time medical practitioners, 111 have part-time, and 65 are exempt. No medical practitioner may be engaged without the approval of the Board's chief medical officer.

How many collieries have hospitals with accommodation for indoor patients?

Eight collieries have fully equipped and up-to-date hospitals. There are, however, three other collieries where serious cases are detained for treatment, though they have no proper arrangements for indoor patients.

How many collieries have dispensaries in separate buildings?

The information is not available, but the number of such dispensaries may be put at about 60.

(ii) *By Government.* Nil. At Dhanbad there is a fully equipped charitable hospital of 46 beds maintained by the Local Board. It is in charge of a Government Assistant Surgeon and under the supervision of the Inspector-General of Civil.

Hospitals, Bihar and Orissa. To this hospital are sent from the collieries all those cases which, from their serious nature, cannot be suitably dealt with on the spot. The Board makes an annual grant to the upkeep of this hospital and maintains a motor ambulance for the transport of patients.

The Local Board maintains also three charitable dispensaries, two in the Jharia field and one in Mugma field.

(iii) *By other agencies.*—The Rajah of Jharia maintains a charitable hospital at Jharia, with seven beds. This also is under the supervision of the Inspector-General of Civil Hospitals, Bihar and Orissa.

21. *Extent to which Medical Facilities are utilised*—(i) *Generally.*—It may be said that the facilities provided are utilised to their fullest extent. It is true that Santals and some others occasionally prefer to rely upon indigenous *nostra*, but the whole tendency is towards the acceptance of western medicine and treatment.

(ii) *By women.*—For most ailments and accidents women are willing to avail themselves readily of the facilities provided, but for diseases peculiar to their sex they appear averse to being treated by a male doctor. Thus maternity cases rarely reach a hospital except occasionally *in extremis*. The wives of babus and similar members of the staff are learning the benefits of skilled attendance at labour, though the miners' wives do not as yet aspire to anything beyond their own futile and dangerous "dais."

(22) *Latrines and other sanitary arrangements*—(i) *At work places.*—Underground scavengers are employed, as ordered by the Mines Act. Their work is without exception inefficient, owing to the lack of arrangements for the removal of night-soil. There are no latrines below ground.

(ii) *At home.*—Attempts have been made to deal with the problem of promiscuous defaecation, with little success. The individual still resorts to the "maidan."

The "Aqua privies" provided on mines were little used, though in Jharia, Katras and Kirkend bazaars, the public latrines installed by the Board are well patronised. A septic tank latrine on one colliery is proving very successful.

For the removal of ashes and other rubbish, gangs of sweepers are employed on the collieries, adequate conservancy arrangements being insisted upon under the Board's byelaws.

Water supply.—The Jharia Water Board provides a piped supply of filtered and chlorinated water from Topchanchi reservoir. About two-thirds of the collieries in the Jharia Field are connected up to this supply. The remaining one-third will connect up as soon as circumstances permit; the water mains do not extend to the Mugma Field. Meanwhile their water supply (from wells) is watched by the officials of the Board.

(23) *Extent and Nature of Official Supervision.*—(i) The Jharia Mines Board of Health directs and supervises every phase of disease prevention in the mines and, to further this end, is concerned also in supervising the villages throughout the whole coalfield area, with certain extensions beyond to those villages whence the colliery labour is derived.

The following is a summary of the activities of the Board: (a) supervision of housing of labour; (b) sanitation on collieries, in bazaars and, to some extent, in villages within the area; (c) supervision of medical arrangements; (d) prevention and control of epidemics on collieries and in villages within the Board's area; (e) supervision of all water supplies; (f) vaccination, both in colliery and rural areas. There is probably no part of India where vaccination is more thoroughly carried out. (g) Registration of births and deaths in collieries and in rural areas; (h) prevention of food adulteration. For this purpose and for examination of water supplies, the Board maintains a well equipped laboratory, which also undertakes the examination of clinical material for medical practitioners free of charge. (i) Public health lectures, both in colliery and rural areas, illustrated by magic lantern slides; and (j) the Board maintains a motor ambulance for the use of collieries.

(25) *Industrial Diseases.*—Hookworm disease. In 1921–22–23, Dr. G. W. Thompson, at that time medical officer of health, Jharia Mines Board of Health, undertook an investigation into the question of hookworm disease as affecting the labourers in the coal fields. Over 15,000 persons were examined, of whom 70 per cent. at least were found to be infected. The Board then decided that "further investigation could add nothing to the results obtained." The question of mass treatment was considered, but never undertaken.

In making the following remarks, to a wide personal experience of hookworm disease in many parts of the tropics has been added the opinion of Dr. F. T. Simpson, who has worked in the Jharia Field for over 20 years.

It is agreed that probably over 90 per cent. of the adult labourers are infected, but, owing to some cause which is not absolutely clear, though it is probably the avirulent nature of the local strain of hookworm, illness (even slight illness) is

produced only in a very small proportion of cases. This is quite contrary to experience in other parts of the tropics (notably in the Kolar Gold Field, of which Dr. Simpson has personal experience), but the fact remains that in the Jharia Field it is exceptional to find a case of anæmia due to hookworm serious enough to unfit a labourer for work.

Treatment is, of course, given to cases requiring it, but there appears to be no necessity whatever for intensive preventive measures, for mass treatment, nor for the laborious and unpleasant methods associated with the attempt to eradicate the hookworm completely. It is held that, so far as the Jharia Field is concerned, there would be no appreciable "increase of efficiency which freedom from the disease brings about".

Coal dust appears to produce as little ill-effect here as in mines in England and elsewhere.

(27) *Maternity Benefits.*—(i) There is no organized scheme whatever. On the majority of collieries, however, the general custom appears to be for the pregnant woman to cease work about a week before the child is expected. During this period, and for two weeks or more after the event, she receives a sum of money weekly roughly equivalent to her earnings had she been at work.

Sometimes a bonus is given of two rupees for a boy and one rupee for a girl. Should she be admitted to hospital for confinement (this is a rare occurrence) food and extras are usually provided free of charge for herself and one attendant, or an allowance is given in lieu.

V.—Welfare (other than Health and Housing, but including Education).

(28) *Extent of Welfare Work.*—(i) *By employers.*—Beyond the provision of a recreation ground here and there, there is no evidence of any welfare work being undertaken.

(ii) *By other agencies.*—The Colliery Employees' Association, with offices at Jharia, was formed to look after the interests of the labouring classes. A few lantern lectures were organised but the activity of the association does not appear to have been noticeable except in the matter of pressing for compensation in accident cases.

(32) *Provision of Educational Facilities by Employers*—(i) *For adult workers* nil.

(ii) *For half-time workers* nil.

(iii) *For workers' children.* Only four collieries are known to provide primary schools.

(iv) *Extent to which used.* Freely used where they exist.

ADDITIONAL QUESTIONS ASKED IN CONNECTION WITH THE ROYAL COMMISSION.

The figures of *death-rate and infant mortality* for the last five years are as follows:—

Year.	Death-rate.	Infant mortality rate.
1924 ..	20·83	156
1925 ..	18·77	137
1926 ..	17·02	137
1927 ..	16·73	117
1928 ..	18·26	116

(In each case, the figures given are for the whole mining settlement.)

Methods of Registration.

1. The Jharia Mining Settlement is divided into eleven circles. Each circle is under the charge of a sanitary inspector, who has under him from two to four vaccinators, the number varying with the size of the circle.

2. *Sanitary inspectors* are registrars of births and deaths, under the Registration of Births and Deaths Act (Bengal, Act IV of 1873). It is their duty to record all births and deaths reported to them in the births and deaths registers. The sources from which the registrars get their information are the following: (a) *Thanas.* All births and deaths reported by the Government Chowkidars at the thana and recorded in the thana registers, are copied by the registrars into the births and deaths registers. (b) *Vaccinators.* The births registered as per paragraph (a) above are then entered in a special form (Vaccinator's Daily Record), one of which is kept for each village in the circle.

Each vaccinator is in sub-charge of a definite area ; a programme is drawn up which ensures a visit to each village every four or five weeks.

Before proceeding on his daily tour of villages, the vaccinator is handed the current Vaccinator's Daily Record appertaining to those villages, which he is to visit. It is the duty of the vaccinator to verify the correctness of the particulars of the entries made in the vaccinator's Daily Records and to add particulars of any births and deaths which have been omitted.

3. *Sanitary inspectors*.—During the vaccination season, when the sanitary inspector visits a village about a week after the vaccination operations have been performed by the vaccinator, he takes with him these records and, while noting the results of vaccination, verifies the entries made previously by the vaccinator.

4. *Collieries*.—The following is the procedure as regards collieries: Births and deaths occurring on collieries are reported in the weekly returns of sickness and mortality which each colliery is required to submit to the Board's office, where the information is separated and forwarded to the sanitary inspectors concerned who, as registrars of births and deaths, record the particulars, after verification, in their respective births and deaths registers.

5. Each registrar of births and deaths submits a monthly return to the office on the prescribed form, where the figures are compiled, thana by thana, for the whole mining settlement area.

Prevalence of Certain Diseases.

(i) *Cholera and smallpox*.—These are the chief diseases affecting the colliery and rural populations.

Year.	Cholera.		Smallpox.	
	Cases.	Deaths.	Cases.	Deaths.
1924 ..	1,411	555	480	20
1925 ..	945	361	698	52
1926 ..	677	158	1,133	65
1927 ..	385	82	1,479	57
1928 ..	663	200	1,526	56

(ii) *Malaria* is not a feature in the health conditions of the coalfield area. It causes little if any disability. Figures of prevalence are not available.

(iii) *Hookworm*.—It is probable that over 90 per cent. of the colliery population suffer from hookworm, but only rarely are appreciable symptoms produced in labourers (see note on Hookworm Diseases in the Jharia mining area). Figures are not available.

(iv) *Plague, Kala-Azar*, and other serious diseases associated with warm climates are almost entirely absent.

PROPOSALS FOR THE ESTABLISHMENT OF A MATERNITY HOME AND CHILD WELFARE CENTRE AT DHANBAD FOR CONSIDERATION BY THE MEMBERS OF THE JHARIA MINES BOARD OF HEALTH.

The question is not now of suggesting or evolving another scheme of which we have had so many already, but one of a practical contribution to the solution of a large and important problem of public health. To be at all successful it must satisfy certain essential conditions:—(1) Its scope must lie within the legitimate functions of a public health body. (2) It must not involve enormous capital outlay and large maintenance expenditure. (3) It should be moderate and reasonable in view of the present depression in the coal trade, one which the Industry would readily accept, and it should be possible to work it with the present finances of the Board without appreciably increasing the rate of cess. (4) Its financial aspect must be clearly worked out in detail. (5) Administratively it should not involve any duplication of Board's staff but should mean a separate department to be served, sustained and furthered by the existing organization of the Board. (6) It should perform a vital public service, actual work and not mere supervision. (7) After functioning as a centralized, efficient service for a number of years and gaining sufficient experience of the conditions and limitations of its work, it should be capable of local service at important centres. (8) By demonstrating sound maternity hygiene, by actual work in delivery cases and after delivery, the nursing of mother and child, it should simultaneously concentrate on educational propaganda in the labour population so that ultimately its utility should far exceed the extremely small proportion of the cases it can actually handle.

After mature consideration I have the following proposals to submit for your approval :—(1) The Board of Health should organize a maternity hospital or a women's nursing home, which should be a centre for medical relief to women workers in the coalfield and a child welfare centre. (2) Such a home for women workers should be located just outside the coalfield, at Dhanbad, to eliminate the noise and smoke and congestion of a thickly populated industrial area, and to secure the benefit of a purer and more restful atmosphere, and an agreeable change of surroundings during a time of extreme physical and mental strain. (3) The home should be easy of access to the general public and for supervision by the Board's Chief and Assistant Medical Officers of Health, near enough to the Board's offices, centrally situated and, if possible, at an easy distance from the Dhanbad hospital. (4) It should be capable of providing accommodation for about thirty beds, out of which it should be possible to put about twenty beds immediately into commission. (5) To start with, twelve out of twenty beds should be reserved for maternity cases, the main object of the home. (6) Four beds should be allotted to accident cases, for women workers in the collieries. (7) Four beds at the outset be reserved for treatment of female diseases or gynaecological cases. (8) It should be called "The Jharia Women's Nursing Home" rather than a "Maternity Hospital," the "Home" having a psychological advantage over the word "Hospital" with working women. It should, in fact, combine a free maternity hospital with a free nursing home for women. (9) It should be organized and worked under the direct supervision of the Board's Medical Officer of Health, who would be its Chief Medical Officer.

As regards the main building for the accommodation contemplated by me, it would cost about sixty thousand rupees to construct. But the Board of Health have a building available which would serve admirably the purposes of the main building of the nursing home.

The total cost of additional buildings would amount to Rs. 50,000, or so.

The following staff would be sufficient to carry on its work :—A lady doctor of civil assistant surgeon class, specialist in midwifery, with sufficient experience, possibly with European qualifications, on a pay of, Rs. 400-25/1-600; two health visitors on Rs. 100 each; a midwife on Rs. 50-5-75; two maternity nurses on Rs. 80 each; four probationer nurses on an allowance of Rs. 20 each, Rs. 80; A clerk on Rs. 40; 11 servants on total of Rs. 165; three dais, one for lady doctor and one for each of the health visitors, in place of orderlies, Rs. 14 × 3 = Rs. 42; Provident Fund for Nos 1, 2, 3, and 4, Rs. 106-8-0; travelling allowance, Rs. 135; Total, Rs. 1,350-0-0. Other items of expenditure: Equipment for 20 beds Rs. 4,000, General Equipment, Rs. 1165.

Lights and fans—two proposals.—(i) From East Indian Railway fitting and connection, Rs. 3,000; (ii) Our own installation, Rs. 6,000. Total, excluding installation, say, Rs. 1,200. Equipment for the operation theatre, Rs. 6,000.

Total equipment for beds, general equipment and equipment for operation theatre, Rs. 11,200.

It would be necessary to furnish the lady doctor's and nurses' quarters with essential items of furniture, simply but comfortably. I expect this would cost Rs. 3,500. Total investment, say, Rs. 15,000.

The Jharia Mines Board of Health already maintains an ambulance car which is not very frequently used, and could be utilized for the purposes of the nursing home and the Board would not have to buy another ambulance.

Besides Rs. 1,350 monthly expenses on staff, there would be the following monthly additional expenditure :—

Maintenance per Bed per Month for Dieting.—In the District Board hospital it is 3 As. and in special cases 4 As. a day. The diet in the nursing home should be more generous and should include a little of fish and meat occasionally and more of milk regularly. I reckon it at As. 8 per day per bed for 20 beds per month, Rs. 300.

Besides : (2) Electric current charges, Rs. 60; (3) telephone charges, Rs. 30; (4) medicines, including materials for dressing, etc., Rs. 100. Total, Rs. 490. Monthly expenses, Rs. 1,350 + 490 = Rs. 1,840. Recurring yearly expenditure, Rs. 22,080.

On the other hand the Board would effect a saving of Rs. 2,000, which is paid as yearly subscription to the District Board hospital at Dhanbad, in connection with the maintenance of a midwife and two nurses.

2. Rs. 250 a month is a very moderate estimate of collection by public subscriptions and possibly a much larger amount could be easily collected. It is necessary, however, to restrict expectations to the minimum figure. This would bring Rs. 3,000 per year.

3. The lady doctor in charge of the home would not be allowed private practice by the Board on policy, as otherwise there is some risk of the interests of the home being partly neglected. In pursuance of the same policy the medical officer of health, like other health officers, has not been allowed private practice. The lady doctor would also be running a public health centre. But her services outside the home cannot be refused in exceptional cases. As there will be no other lady doctor of her qualifications in the coalfield she is much more likely to be called than the medical officer of health. The Board will have to decide as to what is to be done with the fees thus credited. The Board may well utilize a part of the income from this source of Rs. 100 a month towards the payment of her salary or T.A. I expect at least Rs. 1,000 from this source, which brings the total to Rs. 6,000. If we subtract this amount from the total estimated expenditure of Rs. 22,080, the Board will have to incur an annual net maintenance expenditure of approximately Rs. 16,000.

This is the financial aspect of these proposals as a whole. I think the present finances of the Board are sufficiently elastic to incur an expenditure of Rs. 16,000 per annum on running a centre for maternity and child welfare.

The whole of the cost on equipment is estimated at Rs. 15,000, and with electric installation may come to Rs. 20,000. I propose with every reasonable expectation of success to raise the entire cost of equipment by public subscription.

The chief obstacle in the way appears to me that the Board is not in a position to spend Rs. 50,000 on the additional buildings necessary. If the Board borrows the same, the Board would have to pay at least Rs. 3,000 in interest per annum and about Rs. 5,000 per annum in the sinking fund. That means another Rs. 8,000 added to the Rs. 16,000 for maintenance. But in my opinion it is not feasible to ask the Board to spend Rs. 24,000 a year on these proposals, nor could the Board's finances afford it without an increase in cess, which would be unwelcome to the industry, at least at the present moment.

The only solution of the difficulty, and the only way out, is for the Board to ask for and to obtain a grant from the local Government of Rs. 50,000, conditional on—(1) The Board utilizing existing buildings worth Rs. 60,000 for the purpose; and (2) agreeing to maintain the home without any further contribution; and (3) on their being able to realize Rs. 15,000–Rs. 20,000 by public subscription.

Unless the Government can see their way towards making such a grant, proposals cannot materialize.

The working of the home and its staff may be briefly indicated in a general outline:—(1) The home would be in the immediate charge of a lady doctor of the assistant surgeon class, possibly with European qualifications, one who has specialized in maternity and public hygiene. I believe such a qualified person could be secured on the pay offered, Rs. 400–25–600. We could also apply for and obtain the deputation of a member of the Women's Medical Service in the initiation of the scheme on sound foundations. Besides working the home, she would have to supervise by occasional visits, the work of two health visitors and the training of probationer nurses or dais. In the case of need and in special circumstances her expert services would be available for the families of colliery managers. (2) For the present the Board could appoint two health visitors on a pay of Rs. 100 each, and a permanent travelling allowance of Rs. 30 a month. Each could be assisted by a dai class of woman, who would take the place of an orderly for carrying kit, etc., and help the health visitor with local knowledge of the area of her work. Both health visitors could for the present work in the Jharia circle of the Board of Health.

The work of health visitors is not so easy to describe. I got into correspondence with Dr. Ruth Young, W.M.S., of the Lady Chelmsford All India League for Maternity and Child Welfare. She writes as follows:—

"I think it is necessary first of all to lay down the fundamental principle that the work is preventive in its scope, that health workers are not medical women and cannot carry out treatment. Though doctors are, of course, necessary, our view is that much more than half the sickness among women and children in this country is preventable, and can be prevented, by the work of health visitors. Their work is to secure conditions at child birth so that unnecessary deaths do not occur then, and that child birth is not followed by sickness; to keep all young children under observation so that slight departures from normality are noticed in time, and finally to train the mothers by patient educational efforts to look after the infants and children so that good health, not sickness, will be the normal.

"Naturally, work such as this which requires so much detailed effort needs good workers and concentration. The worker must be properly trained, or else you run the risk of the health work degenerating into inferior dispensary work. It follows from this that it is relatively expensive and that results must not be looked for

quickly. A health visitor can only undertake a certain amount of work, and it is better to try out the experiment in a small area and watch the benefit, rather than try to spread it out over a large area when good work is impossible.

"I am emphasizing this point as we so often find committees make the mistake of giving the worker an impossibly large area to work on, disappointment with the work achieved is the only result.

"I do not know what number of births you have in Dhanbad, but my advice would be that you start in a definite area where there is an average of 250-300 births per annum and allow the worker to do concentrated home-visiting there. The establishment of a centre may come later. If there are indigenous midwives, as I suppose is the case, their training should be undertaken at once.

"I should think you have a splendid chance of successful health work in a place like Dhanbad, as I imagine there is a fair amount of control over the workers and housing conditions, I should hope, are good.

In the selected areas put under their charge, concentrating on home-visiting would mean an attempt at securing ante and post delivery hygienic conditions, elementary instruction by simple directions to the mothers for their own and the child's health. It would mean the taking of elementary precautions for securing safe delivery as well as persuasion to allow difficult or abnormal cases to be brought to the nursing home. It would also mean getting into touch with local dais and without courting hostility by attempting to supersede or eliminate them, to instruct them in elementary maternity hygiene and with this view to bring them or persuade them to come for instruction at the home."

The Board's organization already enables its chief medical officer to secure complete vital statistics so that details of births are already available. The health visitors will also get into touch with expectant mothers and would be enabled to advise in and supervise over normal deliveries, within their areas of charge, and to shift the more difficult and abnormal cases to the home. They will also be useful in propaganda work by giving simple lantern lectures on maternity hygiene and child welfare.

In the nursing home itself they could easily and more particularly attend to the health of expectant mothers and to make the ante-confinement period more pleasant and useful. On the other hand, their time at the home on the days or mornings that they do not go out, could be devoted to child welfare work. They could continue the link with the women that have left the home after being delivered or have been delivered outside their supervision, by encouraging them to visit the home once a fortnight and then once a month for the first year or so, when these women could be helped and advised as to the proper care of themselves and the baby, and, if necessary, on the treatment of their children. The lantern lectures in the nursing home would also remain in their charge.

While the health visitors would try to improve the knowledge and handling of delivery cases by local dais outside, the nursing home itself would devote particular attention to the training of a better class of midwives under the direct charge of the lady doctor. There are Indian Christian girls trained in their early years under various missions, and with social progress in the air there is also a certain Bhadrakalok class of non-orthodox Hindus who would be eager to obtain maternity training. Maternity work provides a vocation for such as cannot or do not desire to hang on to the shoulders of a man or such as need to supplement a husband's earnings. Behind a personal predilection there would be knowledge that there is unlimited scope for this class of work. My idea is that four and latterly six such women could be trained and turned out every year from the home. They should by preference be local women of the district, so that they could settle down and practise as midwives, continuing to keep in touch with the home and bringing their more difficult cases there. These probationers, should get Rs. 20 per month as subsistence allowance, and lodged in two out of the five sets of nurses' quarters.

Besides this, there would be weekly classes for the training of a better class among the local dais. There would thus be a gradual improvement in the existing material, and a simultaneous training of a new and better class of midwives. The substitution of the former by the latter *en bloc* is an obvious impossibility. After a number of years, when sufficient progress has been made in both directions, it should be possible to ask Government to authorize the Board of Health to introduce a system of licensing all dais or midwives, so that only those who have passed some recognized test would be permitted to practise and to attend cases. This class would thus be enabled to become helpful and useful, instead of as at present positively dangerous.

Two paid nurses would be qualified both in maternity and general nursing to help the lady doctor at times of delivery and to remain in charge of twenty beds.

It is expected that each maternity case would stay at the home a month on an average, and with 12 beds for maternity cases, 4 for accident cases and 4 for gynaecological cases, there would be accommodation for 144 maternity cases, 48 accident cases and 48 gynaecological cases. If the latter two would take longer time, say six weeks each, the capacity of the home would be still for 36 cases under each of the two latter heads. And this is as much as the home could undertake.

Supply of maternity cases for the home would be secured :—(1) Through the co-operation of the managements and the subordinate staff on the collieries, who would give information and persuade the dhowra delivery cases to be sent to the nursing home. (2) Principally, through the health visitors who would be in intimate touch with delivered as well as expectant mothers in their area of charge. (3) Through the formation of a few local committees of voluntary workers of men who have realized the immense importance of maternity hygiene and child welfare, and who are willing to help in the furtherance of the home's objects in curtailing infant mortality and improving the health and strength of the community as a whole. (4) I have no doubt that most managements would readily accept and agree to the payment of one month's salary, during their stay at the home, to women workers who had worked for six months or more with them before going into the home. It would only be paid after discharge and on production of a certificate from the Home. On the other hand, it would always remain a voluntary contribution. I have, however, no doubt, that most concerns would willingly accept such an obligation. (5) The nursing home would provide free conveyance to the home, free food and free clothing both for child and mother, and free treatment. The life inside the home for the period of stay could be rendered both pleasant and profitable with little or no expense. Useful recreation, like sewing children's clothes, etc., are mere matters of detail. (6) The Board could also sanction a bonus of Rs. 10 on discharge after a successful delivery for the first year or, say, for the first hundred cases. Rs. 1,000 for once would be well spent as a means of advertisement and popularizing the scheme. Accident cases would come automatically, while little or no exertion or inducement would be necessary for securing gynaecological cases. (7) Local dais might get Rs. 2 or Rs. 3 per case brought by them to the home.

Once the thing is going, the home would find it difficult to give admission to all those who would be anxious to come. Simultaneously, the methods of helping in maternity cases outside the home should have considerably improved and elementary knowledge and habits of maternity hygiene spread through propaganda so that actual work at the home would only be a fraction of the total utility of the scheme.

The home would also function as a child welfare centre. I need hardly expatiate upon the urgency and importance of this kind of work, as the public conscience is more alive in this direction than ever before. The child occupies a larger place in the economy, of the family and the protection of young lives is becoming one of the first objects of public concern. Public health organizations and the press are giving more frequent publicity to the high rate of infant mortality prevalent in India.

"She loses annually more than two million babies under one year from causes which are mostly preventable, and, more serious still, she retains among the survivors large numbers of weakly infants who struggle through a sickly childhood, unable to avail themselves of the opportunities of improvement and unfitted for the full duties of citizenship." (Published by the Government of Bengal Public Health Department.)

The first entails immense, needless strain and gratuitous suffering, death, or permanent impairment of health of its women; and the second, a lowering of vitality of the entire population. A visit to any of the children's schools in Bengal, Bihar and Orissa would convince one that the picture is not exaggerated or overdrawn.

Here is an immense field for work. The home would contribute, in however small a measure, by work and something more through propaganda.

Mothers delivered at the home or outside, under the supervision of its staff and such as are otherwise accessible to health visitors in their areas, would be encouraged to bring babies to the home once a fortnight and latterly once a month.

Here their washing and bathing, their change of clothes, their nursing and feeding, the examination and medical treatment of such as are ill, and simple instructions to the mother, could be undertaken on one day fixed in the week, one morning or one afternoon.

Simple instructions would also be given on the care of infants in maladies like whooping-cough, coughs and colds common to childhood, on diarrhoea in babies, on infantile ophthalmia, etc. Records of weight would also be kept.

The home would also organize a Baby Week once every year, thus collaborating with the National Baby Week Council at Simla.

N. P. THADANI,
Chairman,

Jharia Mines Board of Health.

JHARIA MINES BOARD OF HEALTH, DHANBAD.

Mr. J. N. MITRA, Assistant Medical Officer of Health.

Speaking generally, the following are the classes of labour employed by a colliery :—

I.—**UNSKILLED LABOUR.**—8 persons were examined in different collieries.

1. *Miners and loaders.*—The miners generally work in pairs, either husband and wife, or two men who are relatives. The miner cuts the coal and the other man loads it in the tub. The average output for a pair is 3 tubs per day ; average payment per tub is 8, Ans. and average working is 5 days a week, i.e., Rs. 7–8 for twomen, or Rs. 3–12 each person.

Weekly expenses for food and other necessities. A family consisting of husband and wife and two or three children :—Rice, Rs. 3 ; dal, 8 Ans. ; spices, salt and oil, 8 Ans. ; drink, meat (two days in a week), Re. 1 ; clothing average, 8 Ans. ; vegetables, 4 Ans. ; total, Rs. 5–12.

Typical case.—Raman Bhuia, Colokdih colliery, coal cutter. Weekly earnings, Rs. 5, husband and wife. Expenses : Rice, Rs. 3 ; dal, spices and oil, Re. 1 ; vegetable, 8 Ans. ; meat and drink, 8 Ans. ; total, Rs. 5. He saved money for purchase of cloth by reducing his food.

This class of men, as a matter of habit, spends on an average Re. 1 weekly on drink. Gambling is also prevalent. On the whole, they are not able to save much ; in case of illness they have to take a loan to meet their expenses. It is only in case of these persons who have some agricultural land that any saving can be effected, because these people do not bring their families to the colliery but send some money home.

Wagon loading coolies.—6 persons were examined at different collieries.

Surface working. Work in pairs, either husband and wife, or two males. The wages are shared between the pair. Rate paid is 2 Ans. to 3 Ans. per ton of coal loaded in a wagon.

Earnings.—Rs. 4 to Rs. 6 weekly for the pair. According to amount of work available. They work five days in a week, very rarely six days ; so average earnings can be taken as Rs. 5 weekly for the pair, or Rs. 2–8 per person.

Expenses : Rice, Rs. 2–8 ; spices and salt, 2 Ans. ; dal, 6 Ans. ; vegetables, 2 Ans. ; meat once monthly, 2 Ans. ; drink (weekly), 4 Ans. ; clothing (average), 8 Ans. ; total, Rs. 4. These are expenses for a family consisting of husband and wife and two children.

These expenses represent the bare cost of living. The saving is only Re. 1 per week, but when the wife does not work the income is reduced to half.

These loading coolies are generally Bhuia's, most filthy in their habits. They are much addicted to drink and gambling. They may starve, but they must gamble and have drink at least twice a week.

Typical case.—Prosadi, Musahar, Monghyr, loading cooly. Joyrampore colliery. Weekly earnings Rs. 3. Rice, dal, etc., Rs. 1–4 ; drink, 12 Ans. ; total, Rs. 2.

Re. 1 is left, but he spends it in gambling. He has no family to support. He is a single man and works *au pair* with another man.

3. *Trollymen.*—4 cases were examined at different collieries.

Underground. Wages. Contract basis 1 An. to 1–6 Ans. per tub ; 150 to 200 tubs daily by a batch of 8 to 10 men.

Average weekly earnings, Rs. 2–8 to Rs. 3 per man.

Surface.—Wages : Contract basis 9 Ps. to 1–6 Ans. per tub. Set of four to five men, 150 to 200 tubs daily. Average weekly earnings come to about Rs. 2–8 to Rs. 3 a week. The women folk also help them in their work.

Earnings.—Husband and wife, weekly : Husband, Rs. 3 ; wife, Rs. 1–4 ; total, Rs. 4–4. Family consisting of husband and wife and two children.

Weekly expenses : Rice, Rs. 2–8 ; dal, spices, oil, vegetables, etc., Re. 1 ; meat and drink, 6 Ans. ; total, Rs. 3–14. Saves about 6 Ans. weekly, but spends on the children. The expenses for clothing have not been included.

These men are generally Dusad by caste. They are much addicted to drink. Some of them are addicted to "Ganja" smoking. One of them told me that he smokes Rs. 1–14 worth of ganja in a week. The same condition prevails with these men as the other two classes previously mentioned.

Typical case.—Ledu Dusad, surface trolley man, Kirkend Colliery (I. N. Chandra).

Both husband and wife work ; have got two children. The total earnings for the week : Husband, Rs. 3 ; wife, Rs. 1–4 ; total, Rs. 4–4.

Expenses : Rice, Rs. 3 ; dal, Ans. 9 ; oil, Ans. 3 ; salt and spices, Ans. 2 ; vegetables, Ans. 3 ; meat and drink, Ans. 8 ; total, Rs. 4.9. Practically the man cannot save anything. The week in which he earns less, he does not take meat or vegetable. The expenses for clothing have not been taken into account.

4. *Slack kamins*.—Three women were examined at Kirkend Colliery.

These are female labourers employed underground for removing coal dust. The rate paid is Ans. 4 to Ans. 5 per tub. The total work they can give is only two tubs per day. So the weekly earning comes to about Rs. 3 to Rs. 3.12. One tub is worked by two labourers. The weekly-earning is divided among the two, so the total earning weekly comes to about Rs. 1.8 to Rs. 1.14 weekly per female. The cost of food per week per female is about :—Rice, Rs. 1 ; vegetables, dal, salt and other things, Ans. 8 ; total, Rs. 1.8. They can hardly maintain themselves unless their husbands also work. Generally the husband works in some other capacity.

There are two other classes of labourers who work underground :—(1) Proping mistry, wages Ans. 12 to Ans. 14 per day ; (2) proping coolie, wages Ans. 8 to Ans. 10 per day.

One person was examined in Kirkend Colliery.

There is practically no difference in the manner of food these people take from the others before quoted.

The average expenditure on food is Rs. 1.8 to Rs. 2 per man per week. So these men can save something and send it home. They usually come without their families.

2. There are the following classes of *skilled labour* :—(i) Pump khalasi, fireman, engine khalasi. Paid monthly at Rs. 20 to Rs. 25 per month. Sometimes Rs. 16 to Rs. 20 per month.

Their expenses are as follows :—Rice, Rs. 5 to Rs. 6 ; dal, Rs. 3 ; other things, Re. 1 ; total, Rs. 10 to Rs. 11 monthly.

These people are in most instances Mohammedans ; most of them belong to East Bengal (Noakhali district). They do not drink alcohol. They always save money and send it home to their families. They generally live together and feed in a mess.

(ii) *Blacksmith*.—One person only was examined. Pay, Rs. 30 to Rs. 35 a month.

These people come from different parts of the province. They generally come singly. Their expenditure is about Rs. 10 to Rs. 14 per month. They send money home for the family and agriculture. They are in the habit of taking drink at least once a week, if finance permits sometimes oftener.

Filter mistry.—Monthly pay Rs. 40 to Rs. 50 ; expenses on food and other necessities Rs. 10 to Rs. 14 per person per month.

They generally live with family and sometimes save money.

MR. AMRIT LAL OJHA, M.L.C., MEMBER OF THE MINING BOARD, BENGAL.

I.—Recruitment.

1. The labour in the coal fields are distinctly of three varieties, viz., (i) those who have come and permanently settled in the coal fields, (ii) those who are recruited from outside for labour in the mines, and (iii) those who are local people. An average estimate of their proportions in different mine areas in Bengal and Bihar is given below :—

	Settled.	Recruited.	Local.
	Per cent.	Per cent.	Per cent.
Jharia	20	75	5
Mugma	5	15	80
Raneegunge	25	50	25

2. The contact of the recruited labourers with their villages is both frequent and continuous. The labourers generally return home during the monsoon for sowing and selling paddies whence they come to the mines in September and again return in November for the harvesting operations. They practically work in the mines for a period of 6 months. The local labourers however go to their homes every day while the settled labourers being provided with lands by their employers where to carry on agricultural operations, have no necessity to go back, and they have adopted the mines as their permanent abodes.

3. In the coal industry labour is at present recruited through sirdars and other recruiters in the employ of the mine-owners. There is no scarcity of labour in the coal industry at present and the question of any remedial measure does not now seem to arise.

4. Generally miners come with their family into the mines and work underground in pairs, the male cutting the coal while the woman, usually his married wife, carries it up. The surface labourers recruited from Monghyr come alone and go back after 6 months to pay visits to their homes. As at present, the recruitment of mining labour causes very little disturbance in family life.

7. So far as mining labour is concerned there is hardly any unemployment. Agriculturists as they are the mines are to them a second source of income offering them ready employment in times when they are idle. As a matter of fact the mines open employment for all who are ready to come. In case of bumper crops generally miners return to the mines later and in less number.

III.—Housing.

17. It is very difficult to acquire land for the purpose of building workers' houses. The want of facilities has attracted the attention of the Bihar Government and they have amended the Chota Nagpur Tenancy Act to provide for acquisition of land for this purpose. But even the amended Chota Nagpur Tenancy Act does not empower the Government to acquire land for mining purposes at the instance of mine-owners.

IV.—Health.

23. (vi) As yet the sex ratio is practically in parity but the prohibition of employment of women in mines is calculated to materially disturb it.

25. The medical facilities are readily availed of though the women display reluctance in having their maternity cases looked after by medical men. *Dais* and trained midwives are now being tried to help them but the women do not seem to agree to take their assistance too. The apathy however is likely to die out as their help is being availed of in some cases.

31. *Maternity benefits.*—The labourers in question are given necessary rest immediately before and after child birth, when they are provided with *khoraiki*.

V.—Welfare.

As a matter of fact the welfare works in the mines are practically nil save where they are undertaken by individual owners. Shelters to the needy labourers are provided wherever necessary by the employers. The employers also provide for wherever necessary facilities for physical culture and recreation. The labourers like much more the games and sports they are habituated to.

36. Whenever possible arrangements are made by individual mine owners to give primary education to the workers and their children which are not however much availed of.

37. Provision for old age and premature retirement is no doubt desirable but the unavoidable reduction of income for the retired labourers, uneducated as these people are, will make themselves offer the greatest resistance to any such scheme. Moreover the miners not being professional and the labour in the mines being a second profession to them, they being more agriculturists than miners such a scheme does not seem to be at all practicable.

38. Little attempt has hitherto been made to preach among the miners the principle of co-operation. Backward as these people at present are there is hardly any chance of success in such an attempt.

IX.—Hours.

63. Generally in the case of Indian-owned mines 12 hours shift find favour, the maximum working hours per week however not exceeding 54 as required by the Indian Mines Act. Out of the 12 hours the miners actually work about 7 to 8 hours idling away the rest of their time while underground.

The surface work again is intermittent and the loaders work 6 to 7 hours per day. Certain skilled labourers such as pump khalasis, engine khalasis work on a shift system of 8 hours per day.

64. The miners work 4 to 5 days per week while the surface labourers work 6 days a week.

65. The 60 hours restriction has not interfered with the normal working of the mines.

66. It can only be done at the cost of production.

67. The shift system does not at all suit the smaller mines. Though these mines are generally worked on the basis of a 12 hours shift, miners do not go to work in time, and it is very difficult to persuade them to leave the mines by the closing hour of the shift.

68. The daily limitation cannot suit the miners.

69. The intervals the workers avail of according to their own habits idling away more time than necessary. The number of holidays in the mines is according to religious festivals and Pujahs.

70-72. Miners generally do not work on Sundays and Mondays. They do not also work full time on Tuesdays. The existing provisions are quite adequate. Skilled labourers particularly pump khalasis and firemen are exempted from the obligation of weekly day rest and use has to be made of their labour by the employers by keeping them on duty.

X.—Special questions relating to Women, Young Adults and Children.

90. There is hardly anything to be said against the Act of 1923 and certification provisions are quite suitable.

91. The recent regulations of the Government providing for a gradual exclusion of women labourers underground cannot but be characterised as highly ill-advised. Imported practices from other lands can hardly suit the circumstances of this country whose present conditions are not only widely different but have evolved under social customs and traditions almost antagonistic to those lands. Family has always been the centre of Indian lives and the individualist movement of the 19th century has not been able to make any appreciable progress to shake this ground. So a miner, when he comes to the coal fields, brings his little home, as it was, along with him and always prefers to work in pairs keeping his wife working always under his very eyes and protection. The prohibition of the employment of women under these conditions is calculated to disturb this happy position of the worker and to substantially raise the rate of wages and bring about a consequent increase in the cost of production, for the cutter can only be persuaded to work at a wage covering what he and his wife is at present earning together. In the present depressed condition of the industry such a course will serve to put insurmountable difficulties for the industry particularly for the small mines mostly owned by Indians, as in the case of big ones it is quite possible to make use of machinery to counterbalance the loss of labour supply without bringing in any consequent and appreciable relief to the workers.

A Bengali lady, a social worker of admitted credentials in women's cause, Mrs. Kamini Roy, who had the opportunity of making a special study of the labour conditions in the coalfields, made her observations in the matter in the following terms "When a woman is forced by poverty to leave home and earn her living the best thing for her would be to work by the side of her husband or some near relation." The observations on the matter can be hardly made in better terms.

It has only been recently decided to withdraw the entire women labour underground at the rate of 10 per cent. annually and as the operations have commenced only from July this year it is very difficult to say whether the speed is slow or fast, but it can be safely said that people interested in the industry look to the future with alarm and anxiety.

XII.—Wages.

96. In coal mines the wages are generally paid on piece basis. The following is a list of wages paid to various labourers in the mines :—

Cutters paid 11 as. to Re. 1 per ton.

Carriers paid 2 as. to 4 as. per ton.

Trimmers paid 2 as. to 4 as. per ton.

Loaders paid 2 as. to 3 as. per ton.

Onsetters, Banksmen paid 12 as. to Re. 1 per day.

Pump Khalasis, Engine Khalasis—They are monthly paid servants, their wages being 20 to 30 Rupees per month.

In surrounding agricultural areas the rate of wages is comparatively lower.

Besides the wages the labourers in the mines get free quarters and fuel.

97. In the years 1919–1921 upward movement in wages took place but in 1926 commenced a downward movement. The increase was to the extent of 100 per cent. and even more in some cases, the decrease however has been of about 40 to 50 per cent.

The movement has not kept any relation to the prices though it has always kept a proportion quite favourable when compared with the costs of living. There is however no profit sharing system in the mines.

98. Recruited labourers generally effect savings and send money home to the extent of some 50 per cent. of their earnings. The miners are generally thoroughly improvident.

105. In the present condition of labour organization there is neither the possibility nor the necessity of statutory establishment of minimum wages.

107. Labourers are generally paid weekly and in some cases daily.

109. There is no system of bonus or profit-sharing prevailing in the industry though sometimes commissions on production are paid to the miners and also others.

110. Leave is only granted to the monthly paid servants to the extent of one month in a year.

XIII.—Industrial efficiency of workers.

113. Indian workers are comparatively less efficient than workers in other countries.

115. (i) Working hours can be reduced at the cost of production.

116. Education and organisation are the two things that are primarily required before proceeding with any scheme to secure increased efficiency of Indian labour.

XIV.—Trade Combinations.

117. There is practically no combinations of the employers that can dictate any policy. For the employees in mines there is hardly any combination worth mentioning. The Colliery Employees Association has hardly done any work for the labourers and it is understood that they have very few miners, if any, on the list of their members.

XVII.—Administration.

140. *Mines inspection.*—The staff under the Chief Inspector of Mines is quite adequate for the purpose and consists of efficient officials.

THE INDIAN MINING FEDERATION.

Letter from Secretary, dated 6th November, 1929.

I am directed to forward herewith a memorandum of observations of the Committee of the Federation in regard to the matters cognizable by the Royal Commission a full list of which appeared in the List of Subjects issued by you to the public. In this connection, I am desired to make it clear that the Indian Mining Federation which was established in 1914, represents exclusively the capital in the Indian coal mining industry and as such, all observations made in the enclosed memorandum by the Committee relate entirely to the conditions in the coal mines of the Jharia and the Ranigunge coalfields—the two principal sources of Indian coal supply.

2. In placing their views before the Commission, the Committee desire to focus their pointed attention to the two main ideas which principally underlie the views expressed. In the first instance, it is the profound conviction of the Committee that the problem of labour welfare in India, understood in its widest sense, is closely inter-related with the general educational problem of the Indian masses. It is

useless to attempt to approximate labour conditions in India to the standard of western countries until the Indian masses, as for the matter of that, the Indian industrial labour, has made further advance in elementary education. The fundamental fact in the economic life of Indian masses is the prevailing low standard of living. So long as the demand for a better living has not made itself felt from within the labour themselves, all legislative or statutory proposals for uplifting labour conditions are bound to fail in their object. It seems to the Committee that the stiffening of obligation on the employers with regard to labour welfare, as attempted in the recent years, have been largely directed at the wrong end of the problem. To quicken a desire for better living among the Indian workpeople by a strenuous course of education, both general and trade-unionistic, is the primary object to which efforts should have been directed. Unfortunately, this the most important programme of amelioration of Indian Labour has been hitherto neglected, or at any rate, its value and importance scantily realised. In the absence of such real reforming efforts, the Committee are constrained to say that all declarations of policies have remained a pious wish and legislations a kind of window-dressing.

3. Nor there need be overlooked another important aspect of the matter. The social fabric of an eastern people like Indians is yet founded on the older order of status. The sense of mutual obligation which knit the different elements of old Indian society still inform the relation between Indian employers and Indian workmen. This sense of mutual obligation has hitherto served the purpose of ameliorative labour legislation in India remarkably well. And it is only natural that where the old spirit exists, ineffective legislation has been resented both by the employers and the employees. It is not the intention of the Committee to suggest that the legislations should not be undertaken. What they desire to emphasise is that this is an aspect of the labour situation in India which does not make the need for legislation as urgent and as necessary, as it might otherwise appear.

4. Secondly, the necessary *quid pro quo* in the opinion of the Committee, of an improved adjustment of the relation of employers and workers is the efficient organization of the former. Much that legislation may ineffectively seek to accomplish might be easily achieved, if the industrial employers in India to-day were efficiently and effectively organized. Except in the one instance where the prosperity of an overgrown industry has been sustained for years by co-ordinated efforts of the employers, the Committee of the Federation think that every industry in India suffers from the lack of sufficient organization. With such suffering, the welfare of labour is not in a small measure connected. It is impossible to maintain an A1 labour condition with C3 state of profit and under modern conditions, it is only an industry sufficiently organized which can maintain its economic rate of profit. The Committee must confess that the Indian coal industry suffers from the lack of such a vital element for its sustenance. They feel that in the interest of labour, if for no other reason, a tendency towards efficient and effective organization of employers must be fostered. In impressing on the Commission the need for strengthening the position of industrial and trade organization, the Committee can do no better than quote no less an authority than the British Committee on trade and industry whose report was presented to the Parliament in March last. After admitting that one or two efficient organizations exist in Great Britain the Balfour Committee proceeds to remark:—But well-equipped Associations are, we fear, only a minority and able trade representatives who gave evidence before us would be the first to admit that the financial strength of such organizations and the support they receive from their own members are often very much below what is needed for the efficient carrying out of their present duties. We feel that this weakness of trade organization is a matter of such vital concern as to justify our laying particular stress upon it in our report. Many times during the course of our enquiry we have turned with something like envy to the vastly more complete machinery of the Chambers of Commerce of Germany and France, where to all intents and purposes membership and contribution are compulsory. (Vide Balfour Committee's Final Report pages 193-4).

I.—Recruitment.

1. From the point of view of origin, the labour in the coalfields of Jharia, Mugma and Ranigunge admits of a broad threefold distinction. The labourers employed at the coal mines do not completely represent a population resident in the mines. As it is commonly described, the coal miners are not a "settled" population. A small percentage of labour is doubtless permanently resident in the mines; while another small fraction is drawn from the neighbourhood of the mines and though somewhat permanently connected with coal mining industry, is never resident in the mines. In the three fields of Jharia, Mugma and Ranigunge, where conditions

are dissimilar, the proportion of the settled, recruited and local labour is also varying. The following percentage figures may be regarded as indicative of the present-day position.

			Settled.	Recruited.	Local.
Jharia	..	..	15	75	10
Mugma	..	..	5	15	80
Ranigunge	..	..	30	50	20

It will appear that the problem of migration does not present itself in connection with the labour in the coalfields except in a very limited sense. The settlement of labour, chiefly in the Ranigunge coalfields, took place a few generations ago and was doubtless rendered possible, partially by the grant of cultivable land by the employers. It is the prospect of assured wage-earning, supplemented by facilities of agricultural pursuits which drew labourers from the economically distressed areas. But it is remarkable that the movement towards permanent settlement in the mines or to be precise, the mining area, has stopped for the last 15 to 20 years.

2. As it will have been realised from the foregoing reply, the contact of the miners with their native villages is both frequent and continuous. The recruited labourers who are drawn from the Santals, Kols, Bouries, Koras and Bilaspuris (C. P. labourers), have agriculture as their principal occupation. After the close of the harvest season, they generally join the mines in January and retire from them in June for the tilling and sowing of paddy fields. About September, when the rains are over, they return to the mines and withdraw again in November for the harvesting operations. As regards the local labourers who daily attend mines from their home, the contact with their village is of course uninterrupted. The settled labour have adopted the mines as their permanent homes.

3. In the coal industry, there is no organized machinery for recruiting labour. In certain mines where raising of coal is entrusted to contractors, the mine-owners absolve themselves entirely of the responsibility of recruiting labour. In these cases it is the "raising contractors" who employ recruiters in the usual areas of recruitment charging the mine with a certain recruitment expense. But in the mines where working is *Sircari* or departmental, the management themselves employ *sirdars* to recruit labour, the latter earning a special *sirdari* remuneration. In such cases, it is usual to make certain advances to the newly recruited labour known as *Khorahi*, besides, of course, the payment of travelling expenses.

The problems of recruitment of colliery labour are hard to solve. They arise mostly from the fact that a miner is primarily an agriculturist. The scarcity of labour which confronted the industry in an acute form a few years ago continues even to-day and it is advisable that some kind of demarcation of areas between coal and other industries be officially adopted. For themselves, the Federation would suggest Santal Parganas and the whole of Chhota Nagpur as the exclusive area of recruitment for the coal industry.

4. Hitherto the effects of recruitment of mining labour have had small effect on their family life. For, the labourers when migrating periodically to the coalfields used to bring their womenfolk and children along with them. The tenour of their family life has thus remained absolutely undisturbed by the adoption of a new home. But the recent statutory prohibition of underground employment of women in mines is calculated to seriously upset the family life of miners. As a well-known Indian lady worker interested in the labour problems remarked, when man and women are by circumstances driven to a working life, it is better that the husband and the wife work together. (Vide article by Mrs. Kamini Roy in *Modern Review*, April, 1923).

This socio-economic aspect of eliminating women from employment in collieries has hitherto received a very scant attention from the authorities, as is evidenced from the recently made regulation excluding employment of women from mines.

7. It is obvious from what has been already stated that unemployment in the western sense does not and cannot be a feature of the coal-mining labour. On the other hand, in years of crop failure the collieries offer the readiest field of employment for the agriculturally hit population. The subsidiary character of mining as an occupation is borne out by the fact that in years of bumper crop the miners return to the coalfields later in the cold weather and also in reduced number.

The recommendation of the International Labour Conference for the establishment Bureaux cannot clearly have any scope or application in connection with the colliery labour in the circumstances described above.

8. The employment in the coal mines is of continuous character. The collieries are hardly in difficulty in absorbing a fresh supply of labour. But as it is, the recruited labourers themselves retire wholesale for two seasons. It is estimated that withdrawal is responsible for the loss of 33 per cent. of what might have been their aggregate annual wages otherwise.

Besides scope for regular employment of labour in mining operations proper there is in the coal mines also abundant scope for employment of casual labour in connection with building programme and earth-work on the surface.

II.—Staff Organization.

10 and 11. In a large number of the Indian-owned coal mines the local management is generally entrusted to an agent, who is assisted by a technical adviser called the manager of the mine. While the agent is an experienced business man exercising financial and general control over the working of the mine, the manager is responsible for the technical aspect of the mining operations. In some of the mines, however, where there are no agents, the managers combine the double functions. The agent is appointed to represent the proprietor and the manager is appointed from among the persons who hold certificates of competency as mines manager by passing examinations held by the Department of Mines.

12. The regular subordinate supervising staff in a colliery consists of sirdars and overmen. Until recently the colliery managements used to appoint any experienced miner as sirdars. But recent regulations framed under the Indian Mines Act provide for a competency examination which must be passed by all persons prior to their appointment as sirdars. Lectures in vernacular on mining are given in the coalfields for training of sirdars who are, however, still drawn from experienced miners. The overmen are recruited both from the rank of miners as also from educated persons having some knowledge of technical mining. Under recent regulations an overman must have obtained at least a Sirdar's certificate. Regular lectures on various subjects of mining are delivered in various points of the coalfields for mining apprentices who seek to qualify themselves as mines managers on completion of required term of apprenticeship at the mines.

13. The relation in the coal mines between the workpeople and the management is one of general cordiality. There have been few ruptures of this generally cordial relation on score of wages or working conditions. So long as the wages are paid regularly and on the weekly wages day and discipline is leniently enforced so as not to interfere with their prejudices and habits of life, a rupture of relation between the labourers and the management is almost unthinkable under normal conditions.

The setting up of a Works Committee has never been attempted in coal mines ; nor has their need ever been felt.

14. The wages in coal mines for all important classes of work is paid on a piece system. Hence the need for time-keeping from point of view of internal administration is not as great in coal mines as in the other industrial establishments. But there exist certain statutory obligations on the coal mines in this respect. The hours of entry and departure of each miner into and from the pit are required to be recorded in a register which is kept by a timekeeper posted at the pit's mouth.

15. The most important class of contractors known in the coal industry is the raising contractors. They stipulate with the owners to cut and raise coal, dump it on the surface as also to load it into the wagon on the colliery siding. The contractors fix their charge on the basis of per ton loaded into wagon. There are also building contractors, contractors who undertake to carry out earthwork, sink a shaft, and do other odd work.

Sub-contracting is in vogue in the coal industry only to a very limited extent. It is noteworthy, however, that when raising of coal is contracted out, the management exercises full control in the direction of mining operations as also over other matters. The most important effects of the contractors' system in the coal industry are to ensure a continued supply of labour, as also to stabilise production cost to a large extent.

III.—Housing.

16. The housing for labour in the coal industry is almost exclusively provided free by the employers. In the case of settled labour in certain mines, notably in the Ranigunge field, labourers have been allowed to construct their own houses in rural areas away from the mines.

17. In the Jharia coalfield considerable difficulty is met with in the acquisition of surface land for housing. Under the Chhota Nagpur Tenancy Act the mineowners could not at their own instance move the revenue authorities to register a sale of tenancy land. The position has remained substantially unchanged even after an amendment of the Act has been passed by the B. and O. Council last session.

19. Generally speaking, the housing accommodation provided by the employers is availed of by the labourers nowadays. But fifteen to twenty years ago there was distinct prejudice among certain sections of labourers of sleeping inside the *dhowras* (huts). Even to-day prejudice continues in regard to the use of double-storied all-brick buildings such as provided by one or two employers. The Santals have a superstitious horror for brick ceiling.

20. No rent is charged for use of the housing provided by the employers.

IV.—Health.

23. Certain statistical statements compiled by the Boards of Health are given in Statement I appended to this memorandum. They will indicate the extent of mortality and birth-rate in the mining labour. The working conditions in the mines underground are rigidly regulated by the provisions of Indian Mines Act, and health and sanitation of the labour settlements are jealously guarded by the Boards of Health.

The physique of the labourer is determined by the racial type they represent, and has not been known to have suffered any deterioration.

In the coalfields the sex ratio among the labourers has hitherto been in complete parity. For it was hitherto the practice for every male miner cutting coal underground to be accompanied by a female loader (frequently his wife). But the recent regulation prohibiting the employment of women underground is calculated to seriously disturb this parity. The outlook of the situation in this aspect seems to be disquieting.

24. The medical facilities, at least of readily available character, to the labour in the coalfields are exclusively provided free by the employers. The Boards of Health insist by their regulation on the maintenance by every colliery of a stock of more important medicine and surgical accessories, as also of the service of a fully qualified medical man.

25. The medical facilities offered to the labourers are readily availed of. But women absolutely decline to have their maternity cases looked after by any medical agency.

26. It is manifestly impossible to provide latrines for workers underground. The labourers are allowed to commit nuisance in unused parts of the mines which are swept and cleaned periodically. But the Boards of Health specify the requirements of sanitary arrangements to be made in connection with labour *dhowras*.

30. In the form in which sickness insurance has been recommended by the International Labour Conference it is unworkable in the coal industry unless the employers are prepared to shoulder the double responsibility of making their own and the employee's contribution. For the Indian miner is as yet too ignorant to understand insurance or to appreciate its value. Moreover, such legislation as the proposed Sickness Insurance will have the effect of financially embarrassing the employers in the present state of their organization. A necessary prelude to advanced ameliorative legislation affecting Indian labour is the need for better organization of employers which has hitherto made small advance on a purely voluntary basis.

It may be added here that in the coal industry there is a practice of giving *Khoraki* to labourers incapacitated by temporary illness.

V.—Welfare.

32. The Federation cannot help confessing that the welfare work among the mining labour is almost absent, whatever scanty efforts have been made being, however, entirely undertaken by the employees themselves. Since 1923 the coal industry has been passing through a depression and in the years preceding it, efforts on the part of individual mines were impossible for lack of sufficient organization of the industry.

33. So far as the Federation is aware, there has never been any constructive workers in the field of welfare work.

34. Miners' children enjoy certain amenities. Sports are encouraged, football being the most favourite game.

35. No definite results are discernible.

36. In certain mines, limited attempts have been made to provide educational facilities to the children of the work-people. But such efforts have not been of a sustained character, specially for the lack of sufficient funds at the disposal of the employers.

37. The great bulk of the mining labour being primarily agriculturists and the workers themselves serving too many employers, the question of old age pension does not arise at all.

38. Among the mining labour it is impossible to preach with any success the principle of co-operation. At any rate, no attempt has hitherto been made to promote co-operative movement among the mining labour.

39. The Federation does not feel the need of any.

VI.—Education.

40-42. In the Ranigunge field there are a number of high, middle and primary schools scattered throughout the coalfield. In the Jharia field similar facilities exist but in a more limited extent. The children of the labouring class do not join these schools. And those who join do not pursue mining as an occupation in after-life. It is difficult, therefore, to ascertain how far education has re-acted on the industrial efficiency of the miners.

VII.—Safety.

43. The safety of the workpeople in the coal mines is ensured by Regulations and Rules framed by the central and local governments under Sections 29 and 30 of the Indian Mines Act, 1923.

44. A statistical table regarding accidents in the coal mines is given in the Statement II appended to this memorandum.

45. The causes of such accidents are principally subsidence of surface and gallery wall, flooding and spontaneous combustion.

49. The Département of Mines is particularly vigilant in the inspection of coal mines. The headquarters of the department is situated in the coalfields.

50. The provision for the use of special types of lamps underground in the gaseous coal mines has undoubtedly contributed to the safety of the workpeople. Beyond this, it is difficult to assess the effect of other factors mentioned on the safety of the labourers.

VIII.—Workmen's Compensation.

51. In the coal industry the provisions of the Act are fully availed of on behalf of the labour. In minor cases of temporary disability preference is expressed both by the employers and the employed to continue the old practice of "Bhata" than to rigorously follow the Act. It is, however, impossible to state the proportion of actual and possible claims under the Act.

Insurance facilities are readily available, but the premium, presumably based on British conditions in the coal industry, is too high. The result has been that most of the Indian-owned coal mines have preferred to keep their risk uncovered.

52. The Federation has no suggestion to make.

The Federation does not think the Act should be amended so as to safeguard the claim of the workmen against insolvency of the employers. As a matter of fact, it is more often the practice in the coal industry to compound the claim by a lump sum payment.

53. The existing provisions of the Act are considered adequate.

54. The Federation does not consider the passing of such an Act necessary.

IX.—Hours.

63. The daily working hours in a coal mine are 20 to 24 worked by a kind of two shifts. The aggregate working hours per week underground are roughly 100. On an average the miners idle away one third of their time while underground.

In regard to surface work, the work is intermittent, and there is no regular shift. The loaders work 6 to 7 hours per day. Certain skilled labour such as pump-khalasis, firemen work 8 hours a day.

64. The mines work 4 to 5 days a week, the surface labourers work 6 days in the week.

65. The 54 hours restriction has not affected working in coal mines as the miners' work do not extend beyond 4 to 5 days per week.

66. The legislation passed in this behalf (Act XIII of 1928) is not suitable at all, as miners do not desire to subject themselves to regularity of attendance which a

system of shift requires. In the circumstances, generally speaking, the Indian-owned collieries will probably show a preference for limiting working hours to 12 per day. But even here it will be difficult to persuade the miners starting work late in the day to leave the mine at the closing hour of the shift.

67. The problem is one which is intimately connected with a radical change of the habits of miners and an organized effort on the part of the industry is necessary prelude of this as of many other reforms of working condition in the coal industry.

69. Having regard to the idling habit of miners while underground in mines, no special provision is required in this respect.

70. The miners, as already stated do not work for more than 4 to 5 days in the week, and the loaders who constitute the bulk of labour on the surface of a coal mine also do not put in more than 6 days work in the week. It is only with regard to such skilled labour as pump khalasis, firemen, etc., that their work is uninterrupted throughout the week. But with regard to them, as required by the Section 23 of the Indian Mines Act, a weekly day of rest is given.

71. The existing statutory provision in regard to weekly day of rest is adequate.

72. Under the Indian Mines Act no exemption has been granted in regard to the obligation of a weekly day of rest, though both in 1923 and 1924 the Mining Federation suggested that exemption should be granted in respect of such skilled labour as pump khalasis, fireman, etc.

X.—Women, Young Adults and Children.

90. The provision for certification of children made in the Indian Mines Act, 1923, has worked well.

91. The recent action taken by the Government in providing for gradual exclusion of women from underground employment in mines has been unfortunate. The prohibition of women in the majority of Indian Mines is wholly unwarranted. In any event, the method of excluding women from employment has been most ill-conceived. What should have been prescribed by Government is a uniform rate of reduction of employment in place of standardising a percentage figure of employment applicable all over the coal industry.

The proportion of women labour to the total labour employed varies from mine to mine. In standardising this proportion to 29 per cent., for instance, for 1929, some of the mines have been needlessly more hit than others. It would have been enough for the purpose of the regulation to provide that every mine shall reduce its employment of women labour underground each year, say, by 10 per cent.

The direct effect of the prohibition of employment of women would be a rise in the wages, the burden of which will not pass on to consumers in the present state of the coal market. Here again, lack of efficient organization of the industry will affect the margin of profit.

Economically the loss of earning of women will tend to lower the standard of living of the labourers.

Withdrawal of male labour has not yet assumed serious proportions, but a most disquieting situation is foreseen ahead.

XII. Wages.

96. The bulk of the mining labour is paid wages on piece basis. But some skilled labourers are also employed for monthly wages. The following is the list of wages paid to various workpeople in the mines:—Miners and loaders, 7 As. to 9 As. per tub of 13 cwt. Average output, 3 tubs per day jointly by 1 miner and 1 loader. Wagon-loading coolies, 2 As. to 3 As. per ton. Average earnings per day per head 10 As. to 12 As. Onsetter, banksmen, 10 As. to 12 As. per day. Pump khalasis, firemen, engine khalasis, Rs. 20 to Rs. 25 per month. Fitter, Rs. 40 to Rs. 50 per month. Head mistry, Punjabi mistry, Rs. 50 to Rs. 70 per month. Blacksmith, carpenter, Rs. 30 to Rs. 35 per month. Daily labour (surface), 8 to 12 As. per day.

There are a number of indirect benefits which the labour enjoy in the coal mines. He receives free coal for consumption, kerosine oil for lighting, he receives *Parbani* or *Baksis* on numerous festive occasions. Besides, he is entitled to free housing and travelling expenses both ways for trips to his village home. The real wages may thus be calculated in terms of money on the monthly basis:—Fuel, Rs. 1.8; travelling, Rs. 1; Baksis, Rs. 1.8; housing, Rs. 2; kerosine, Rs. 0.8; total Rs. 6.8 per month.

The Federation is not in a position to quote wages rate in the neighbouring industries. In the Jharia field there is hardly any.

97. During 1920 and 1921 the wages on the coalfields rose by practically 100 per cent. But in 1927 the wages have fallen by 25 per cent.

The movement in wages was determined by trade conditions. Coal prices rose by more than 100 per cent. in 1919 and 1920 and have dropped by 200 per cent since 1923.

One of the factors which influenced the wage movement in 1920 was the high cost of living. But a downward movement of wages cannot be brought about simultaneously with a downward movement of general price level.

The coal industry has known few periods of high profits. During the only good years of 1919 to 1922 the wages were markedly increased. But it is remarkable that the fall in wages has not been commensurate at all with the depressed prices in the recent years.

98. The better paid skilled labourers are provident and make regular remittances home. Even some miners send remittances home.

100. The contractors system does not affect the rate of wages. The profits of the raising contractors do not lie in wage-cutting but emanate largely from the recruiting expenses which the mine-owners have to incur when working the mines departmentally.

101. The wages are fixed according to the ruling rates in the locality. This is precisely the reason why the movement of wages in either direction, particularly in downward, is slow to be effective. There is no collective bargaining but a demand is sometimes put forward for higher wages by the miners of an individual colliery.

102. Overtime work in mines is very limited but when availed of, the basis of payment is the same as for regular work.

103. The wages are very nearly standardized in each field or to be more correct, in each locality, even though there is no machinery of collective bargaining.

104. The supply of labour does not depend on rate of wages but on the character of the crop harvests each year.

105. There is neither any necessity nor any possibility of working a minimum wages system in the present state of labour organization.

106. The various deductions referred to are almost unknown in the coal industry.

107. Wages are paid once a week practically all over the coalfields, at present, on Sunday. Even the monthly wage-earners are paid on account weekly. There is no need for legislation for more frequent payment in the coal industry. Cases of unclaimed wages occur very rarely, if ever at all. In the Ranigunge field, most labourers receive payment even daily.

108. Indebtedness exists among mining labour but not in any appreciable scale. Creditors are usually the *Kabulis* and debtors are frequently the better-paid skilled labour.

109. Profit-sharing in the technical sense does not exist in the coal industry. But special bonus is sometimes given to the miners with the object of stimulating larger output or carrying out any work of special nature.

110. The better-paid skilled labour receive generally one month's leave in a year on full pay. The miners who work on piece basis and leave the mines at their sweet will do not ask nor are they given any leave.

111. Such a provision in the public contracts seems wholly uncalled for.

XIII.—Industrial Efficiency.

112. The Federation consider there has been a slight improvement in the efficiency of the Indian coal-mining labour in the recent years.

113. A comparative statement, as prepared by the Chief Inspector of Mines, is given to indicate comparative efficiency of Indian and foreign coal-miners.

114. The use of machinery, education and better standard of living are the most important factors affecting the efficiency of Indian coal-miners in comparison with the similar labourers of other countries. The spur to earn more and to produce more is entirely absent in Indian labour. He always works for a certain fixed level of income and when that is reached, he is reluctant to work more. Hence a higher wage leads to a fall in working hours.

115. The restriction of working hours has not affected production cost in the coal industry but the increasing statutory obligations on the employers with regard to health and sanitation, working condition, building and housing have the most decided effect of adding to the cost. This addition spread over the last 7 years has coincided with period of depression in the coal industry. The effect of this coincidence on the wage level has been unfortunate. As it must have been apparent, an upward movement of wage level tends to adversely affect volume of production.

116. The problem of industrial efficiency is entirely one of educating the Indian masses and the thorough organization of the industry itself, if necessary, under active official encouragement.

XIV.—Trade Combination.

117. As far as the Federation is aware, there is no miners' organization in the coal industry, with the exception of the Colliery Employees' Association. This body is primarily an organization of clerical assistants in the colliery offices but is reported to have on the roll a sprinkling of miners.

On the employers' side, the coal trade is represented by the Indian Mining Association and the Indian Mining Federation, the former comprising of non-Indians and the latter of Indian firms generally. The activity of these bodies are limited to communication with outside authorities and the Government and providing a kind of clearing house of information.

Internally these bodies cannot force their own will on the industry. None of the bodies have been ever known to have adopted concerted action in regulating production, prices, wages, sanitary or working conditions.

118. These bodies have served excellently to bring into relief the general grievances of the industry in relation to Central or Local Governments, railways, port authorities and other outside agencies.

119. These bodies do not pay any vital part in the carrying of day-to-day business of the coal firms. They voice grievance and seek relief from other authorities.

XV.—Industrial Disputes.

123. No lock-out was ever threatened or resorted to in the history of the coal industry. In 1920, owing to the activity of certain labour leaders the labour in the coalfield was very much disturbed. But actual strikes were few. Since 1922, the labour position has been entirely unruffled.

124. As it would be obvious, no occasion arose in the coal industry for exploitation of the conciliation or arbitration machinery. The only machinery of the kind is the Bengal Industrial Conciliation Panel in which the coal industry is represented but there was no occasion for this machinery to function in relation to a dispute in the coal industry.

126. Towards the need for combination of employers the attitude of the Government appears to be unsympathetic. The Railway Board last year turned down a simple proposal of the Federation which was put forward with a view to strengthening the combination of employers in the coal industry.

XVII.—Administration.

133. The Central Legislature is at once sympathetic and discriminative in the passing of labour legislation. But that Assembly suffers in that respect from lack of first-hand information. A wider representation of industrial interests, as distinguished from spokesman of commercial politics, is required to make good this defect.

The local councils, at least of the two provinces of Bengal and Behar and Orissa, are apathetic to labour and to all economic questions. None of them have passed any labour legislation.

134. The effect of the Labour Conference has been the crop of the new legislations the reaction of which on the production cost of the industry has already been referred to.

135. A radical overhauling is called for in this direction and must go down deep to the root of the present constitutional position. Local Governments have no constitutional *locus standi* to take cognizance of the larger problems of the coal industry and the Central Government is insufficiently in touch with it. The local governments express opinion in matters where they have no responsibility of their own. The field of taxation with regard to industries should also be more clearly demarcated than at present. The solution of the present anomalous position lies in either the Central Government cultivating more direct contact with the coal industry or the Local Governments being allowed wider administrative jurisdiction in dealing with problems of the industry.

137. There are a number of inter-provincial discrepancies in the matter of taxation on coal industry. The cess of the Jharia Mines Board of Health (B. and O.) and the Asansol Mines Board of Health (Bengal) are not always identical. There is an exclusive taxation in Behar and Orissa under the Jharia Water Supply Act, 1914, and the Government of Bengal have had proposals on legislative anvil for a cess on the profits of coal mines in connection with the rural primary education scheme.

XVIII.—Intelligence.

143. The statistics with regard to coal industry are comprehensive enough but are not readily available to the public from the Department of Mines owing to a curious interpretation of a certain section of the Indian Mines Act.

144. The compilation of statistics is generally satisfactory except probably the price statistics. But they should be more elaborately and readily made available at shorter intervals to the trade and the public.

145. No endeavour has so far been made in this direction except what an official of the Federation made in 1923. But financial difficulties and lack of co-operation compelled him to give up the efforts after they had made a small headway.

146. What is needed is a strengthening of the position of the employers' organization in which event the economic studies can be easily undertaken by them at their own initiative or at the instance of the Government.

Statement I. (See reply No. 23). Showing particulars of death generally and from cholera and small-pox specially in the mining settlement areas during 1927.

JHARIA MINING SETTLEMENT.

Death average adult population.

Men.	Women.	Total.	Death rate per thousand.
3,979	3,616	7,595	16.73

Infant mortality (of less than 1 year old).

Birth.	Death.	Ratio of death to birth per thousand.
15,315	1,789	117

Prevalence of Cholera and Small-pox among colliery population alone.

	Cases.	Death.
Cholera	68	12
Small-pox	748	29

ASANSOL MINING SETTLEMENT.

Death among the population.

Men.	Women.	Total.	Death rate per thousand.
2,913	2,563	5,476	16.62

Death from various diseases.

	Number of deaths.	Rate per 1,000 of population.
Cholera	120	0.36
Small-pox	72	0.21
Plague	0	—
Fever	848	2.57
Dysentery and Diarrhoea ..	103	0.31
Respiratory diseases..	985	2.98
Other causes	3,348	10.15
Total	5,476	16.62

Statement II. (See reply No. 113). Showing the number and results of accidents in mines (chiefly coal mines) in the districts of Burdwan (Bengal) and Munbhum (B. and O.) during the year 1927.

*Note :—*The Jharia and Ranigunge coalfields are situated within these districts.

Fields.	Dead.			Seriously Wounded.		
	Under-ground.	Open colliery.	Surface.	Under-ground.	Open works.	Surface.
Bengal (Burdwan) ..	27	—	9	45	2	18
Bihar and Orissa (Jharia and Ranigunge)	97	—	6	182	2	44

Statement III. (See reply No. 113). A comparative statement showing the output of coal raised per head of labour employed in India and other countries.

	Above and below ground per head.				Below ground only per head
	tons.				tons.
United States	780	930 in 1926
Great Britain	252	316 in 1927
Germany	278	(a) in 1926
France	160	225 in 1927
Belgium	154	219 in 1927
Japan	132	(a) in 1926
India	113	166 in 1926
India	122	176 in 1927

Mr. J. H. LANG, Officiating Chief Inspector of Mines in India.

I.—Recruitment.

1. Two-thirds of the total workers in Indian mines are employed in the coal mines of Bengal and Bihar and Orissa. The earliest miners in the Asansol and Jharia coalfields were the local Bauris, but these have, to a great extent, been supplanted by the aboriginal Santals, Kols, Koras and Gonds. In more recent years recruiting has been done amongst the Bhuyias, Rajwars, Gopes, Lodhs, Nunias, etc., collectively known as C.P. miners.

2. To a great extent labour is seasonal, as the average miner is at heart an agriculturist and during the sowing and harvesting seasons departs for the fields. In the years following a bad harvest there is always an abundance of labour, but when the harvest is good labour is scarce.

In some parts of the coalfields especially in the Dishergarh area, the labour comes in from the surrounding villages, which are sometimes as far distant as 15 miles or more, and spends the whole day and night at the colliery. This is done twice and occasionally three times per week. The proportion of settled miners is as yet small, except in the salt mines at Khewra. This proportion is, however, growing year by year.

3. *Methods of Recruitment—(a) Raising Contractor method.*—A raising contractor is paid a fixed rate per ton of coal raised and he recruits the necessary labour. Labour imported from a distance is transported to the mine at the contractor's expense, and, in addition, it is usual for the contractor to give monetary advances up to Rs. 20 per head. Railway fares are not recovered, but advances are sometimes recovered over a reasonable period from the worker's pay.

(b) *Labour Contractor method.*—At some of the large coal mines a labour contractor is employed. He is paid a fixed sum of from 1 to 4 annas per ton of coal raised or despatched, and is responsible for recruiting labour. He employs a number of recruiters. In this case, as wages are paid to individual workers by the company, advances of pay are made and recovered by the colliery company.

(c) *Miners Sirdars*.—A miners' sirdar is a sort of gang leader or petty contractor, and is generally a man having some influence in his own village. The gang usually consists of 10 to 50 men from one village. The gang is free to move from colliery to colliery. The sirdar is either paid by the company at the rate of $\frac{1}{2}$ to 1 anna per tub of coal raised by the gang, and the gang paid separately by the company, or the wages of the gang are paid to the sirdar for distribution after he has deducted his own commission.

In some cases the colliery companies have large zamindaries and a small plot of cultivatable land is given to each miner as an inducement to stay at the colliery. If the miner leaves the colliery his lien on the land is forfeited. This system is, however, going out of vogue.

The indigenous population of the mining fields is free labour, and a miner can move from mine to mine at his own volition. Such labour working at small mines is engaged and paid daily, but at the larger mines weekly.

(d) *Sirkari*.—In this case the colliery company maintains its own staff of recruiters. Some recruiters remain in the colliery to look after resident labour, and others are sent out into distant villages. Each recruiter supervises a number of villages. The headman of a village from which labour is drawn is paid a monthly salary and a small commission on the output obtained by his men so that he will influence the villagers to work at that particular colliery and attend work regularly. In many cases when the miners work for a considerable period advances are not recovered.

Mines in Burma.—At the stone, tin and wolfram mines in Burma a portion of the labour force is imported from Orissa. The major portion of the labour is Chinese. On recruitment advances are paid and the recruiter, generally a contractor, bears all travelling expenses. In some cases the employer bears repatriation expenses after a term of two years if the employee gives continuous service for that period.

At the mines of the Burma Corporation, Limited, no recruiting is now necessary as the high rates of pay are sufficiently attractive to maintain an adequate supply of labour.

Assam.—In Assam the labour is chiefly recruited through the Tea District Labour Association, which is under Government supervision. Mekranis from Karachi are also recruited by sirdars sent for this purpose.

There is little difference in the actual recruiting, whether it is done directly or through the raising or labour contractor or a miners' sirdar. The mines themselves are the best recruiting agents for when good housing, easy conditions, good ventilation and facilities are provided there will be no dearth of labourers.

As there is at present no unemployment amongst the labour force in the coalfield there is no need to establish public employment agencies. It is doubtful also whether the mining companies would combine to establish a recruiting agency.

7. There is practically no unemployment amongst the labouring classes in mines, although there may be a little amongst the classes from which the subordinate staffs are drawn.

8. I have no figures showing the extent of absenteeism due to seasonal migration, but to some extent it may be gauged from the accompanying chart showing the monthly output for coal mines for the whole of India, and for the two main coalfields for the year 1928. The graphs are characteristic of other years. The decline from March to May is due to the labour attending their villages for marriage ceremonies. The large drop in July is due to the miners absenting themselves for ploughing and sowing, while in November the harvest is reaped. If the labour force which is available in February were available throughout the year the output would be increased by about 25 per cent.

In addition to this seasonal absenteeism the miner absents himself two or three days per week. Those who are paid a weekly or monthly wage show a better attendance than the miners and loaders who are paid according to the amount of coal loaded.

II.—Staff Organization.

10. Large groups of mines are usually under the charge of an "agent" who is designated agent, superintendent, general manager or chief mining engineer. These are responsible to the managing agents or in some cases to mining companies.

Under the agent are the mechanical engineer and electrical engineer, who are responsible for the mechanical and electrical plants in the group of mines and the mine managers who are in charge of the mines. In large mines there is an under-manager with overmen in charge of districts and under them the sirdars.

11. In the larger coal mines managed by European firms the managers are generally Europeans, who have originally been recruited from home. These Europeans are usually appointed as assistants, and after they have had time to learn

the conditions and the language are promoted to manage a mine. For the coal mines these persons hold first-class Coal Mine Managers' Certificates from home. A number of the European managers, however, have been trained in India and hold Indian Coal Managers' Certificates. Very often these European managers change from one company to another. Collieries with an output of more than 2,500 tons per month must have a first-class certificated manager, while from 600 to 2,500 a first or second-class manager must be appointed. The Indian managers have usually had their training in India and have passed the examinations in this country. A few, however, have obtained their certificates in Great Britain.

12. (i) In the case of better educated classes a person usually joins a colliery as an apprentice. After he has had practical training for three years and attained the age of 21 years, he may sit at the examination for a Sirdar's certificate, and if successful he may be appointed as a sirdar or overman. In the case of a person holding an approved degree or diploma the period for practical training is reduced to one year. He may also sit for the second-class certificate after three years and for the first-class certificate after five years. In the case of those holding approved degrees this period is reduced to two and three years, respectively. A person holding one of these certificates enhances his prospects of being appointed as an assistant manager, and if he proves himself worthy may eventually get the post of manager. In cases where it is considered that there is no suitable person, recruitment may be made from outside for the subordinate staff.

In the case of the uneducated classes the person in charge of a gang of miners is sometimes appointed as sirdar, and as such may be required to make the statutory examination of the mine. Before doing so, however, he must hold a sirdar's certificate, examination for which is an oral one which is conducted on practical lines. In some cases these persons after proving their worth are appointed as overmen. As, however, they are not educated they cannot study for the first and second-class managers' certificates and hence cannot rise very high.

(ii) Classes framed by the Local Governments and run by the Mining Education Advisory Board are held in the Jharia and Raniganj coalfields. Two centres are provided in each coalfield. These classes comprise a three-years' course, and are held in the evenings, so as to allow assistants, overmen and apprentices to attend them. A student is thus enabled to study so as to pass the examination for a manager's certificate. More advanced training is given at the Indian School of Mines, where students attend during the whole day.

In addition to these, vernacular classes are held at several centres for the purpose of training the sirdar class. Similar classes are held in the Pench Valley, Central Provinces, and at Giridih.

14. Timekeeping is kept by clerks appointed for the purpose who usually note the times at which the work-persons descend and ascend. In opencast workings, where there are numerous ways into the quarry, and in underground mines where there are a large number of inclines, the checking is difficult for a miner may enter one way and ascend by another. It is only by maintaining strict discipline and making the labour ascend and descend by the same route that a proper check can be exercised.

The number of tubs loaded in each section is noted by the underground staff and by clerks called munshis, whose job it is to note the number loaded by each gang.

15. (i) Contracts vary from petty contracts to the whole mine being run on contract. The company only pays the supervising staff while the contractor pays all the other labour and recruiting expenses. In other cases the labour contractor is employed who only supplies labour. He is usually paid on the despatches or raisings of the labour recruited by him. This amounts to from one to four annas per ton. Even with the same company one mine may be run on contract and the neighbouring mine run *sarkari*. There are no figures available as to the extent of those contracts.

(iii) The contractor is generally restricted to the raising of coal, while the colliery supervising staff is responsible for seeing that the mine is run safely. In some cases where the supervising staff has been paid by the contractor the Department of Mines has objected to the practice, as there is then a tendency for the staff to pay more attention to raisings than to safety.

(iv) It is rather difficult to state the effects of contracts. If not properly supervised the contract system may have a bad effect in that the contractor may endeavour to win coal from the easiest places so as to get a good output. When proper control is exercised by the management there should be no ill effects. Opinions vary as to whether contracting or working is a cheaper method.

III.—Housing.

16. Housing for all the resident labour in a mine is generally supplied by the company, but in some cases the labour travel to their work from their own village. In such cases they have their own houses. No houses are supplied by Government or by private landlords.

18. In the Raniganj and Jharia coalfields miners' dwellings are constructed in accordance with certain regulations laid down by the Asansol and Jharia Mines Boards of Health, respectively.

The type of house most commonly found in the Jharia coalfield is that known as the "arched dhoura", built of cement concrete throughout. In the Asansol field a large number have recently been constructed with Raniganj tiled roofs.

Owing to the depression in the coal industry it has not been found expedient to insist upon too close adherence to the standards laid down by the Boards. These dwellings are much superior to many in other mining areas in which housing does not come under authoritative supervision.

Some of the accommodation for miners in some of the metalliferous mining areas is deplorable, but this is no doubt due to the temporary nature of the work and to the migratory labour, as the miners may work for a very short period and then leave their work, in the meantime having built some flimsy structure for habitation.

At the Burma Corporation's Bawdwin mine the total labour force is housed in substantially built quarters. Drinking and washing water is piped to convenient points and the sanitation of the camp is taken care of by an adequate staff of sweepers. Latrines for both sexes are provided and their use is strictly enforced.

At other mines of the Burma Corporation temporary dwellings are provided. Such temporary dwellings are destroyed or rebuilt annually as the work at the ironstone and limestone mines is of a seasonal nature.

At the large stone, tin and wolfram mines houses are of a semi-permanent nature. Housing is generally better than that of the indigenous labouring classes in the villages. At small mines where seasonal work is carried on temporary dwellings are provided generally in the form of one or more large temporary structures constructed of bamboo and thatched with leaves.

In a few cases electric light is supplied in the dhowrahs but usually the man supplies his own light in most cases from oil saved from his allowance for his lamp underground.

19. There is little difficulty in getting the labour to utilize the housing provided.

20. No rent is charged for the houses of workers.

IV.—Health.

23. (iii) Working conditions underground compare favourably with home conditions except with regard to ventilation. In some mines ventilation is sluggish during the hot weather and the monsoon and if gunpowder is used the fumes do not clear away readily. In other mines it is much more pleasant underground during the hot weather than it is on the surface, due to the air being cooled during its passage through the mine.

24. At practically all the larger mines a qualified doctor is employed who attends all the labour on the colliery and their families free of charge. At some collieries persons living on the colliery but not employed are also given medical attendance.

At the larger groups of mines hospitals have been provided, but the labour show a certain reluctance in taking advantage of them and they are therefore used mainly for accident cases.

Three midwives are employed by the Asansol Mines Board of Health. The chief work of the midwives lies amongst the colliery population whose houses they visit regularly, giving anti- and post-natal advice and assistance to women requiring it. There are no lady doctors employed regularly in the coalfields. In a few cases the mining companies have also employed midwives, but it is difficult to get the labour to take full advantage of the facilities provided.

25. The opposition to accepting medical relief is being gradually broken down and now some of the labour voluntarily present themselves for treatment. This has only been achieved as the result of years of patient labour.

Women on the whole are more prejudicial. At Bhowra colliery a ward for maternity cases was provided some years ago, but it was never used as no woman would even be persuaded to enter it. It has had to be abandoned.

26. At very few mines are latrines provided underground, the main exception being Bawdwin. Latrines are, however, provided in the congested areas in Jharia, on the surface and in the homes.

Bathing ghats are usually provided at collieries in which the workers may bathe after their day's labour. In many cases they use tanks and rivers for the purpose where these are available.

28. The Coal Mines Regulations provide that an adequate amount of ventilation shall be constantly produced in every mine to clear away smoke and render harmless inflammable and noxious gases to such an extent that the working places and travelling roads shall be in a safe state for persons working and passing therein. There is no definition of what is meant by an adequate amount of ventilation. During its passage through a mine the air absorbs water and the upcast air is, therefore, always humid.

29. Indian mines are fortunately free from industrial diseases, nystagmus and miners' cramp being unknown. The majority of the labour, however, are infected with ankylostomiasis or hookworm. This, however, is common to all classes of Indian labour.

Thanks to the efforts of the Mines Boards of Health and the managements of the mining concerns any outbreaks of cholera in the mining areas are quickly controlled and the mining labour suffers less than the surrounding areas.

In Assam and South Burma malaria is prevalent. In other districts the labour does not suffer much from this disease.

V.—Welfare.

32. Very little has been done in regard to welfare work by the employers except at a few mines. The Mines Boards of Health do some, but their main object is the prevention of disease.

34. At some mines shelters and creches are provided near the mines by the employers for the children so that many of the mothers may leave them alone while they work.

At a number of mines the members of the staff are encouraged to play football, but very few of the miners play.

36. The only serious attempt to educate the Indian miner has been made at Giridih, where twelve classes were commenced in 1894. There are now thirty classes, with approximately 2,000 children. Attendance is compulsory for boys up to 12 years of age. The more promising boys may pass on to the industrial school and thence to the colliery engineering workshop. It is no wonder that many lads trained at Giridih become sirdars and overmen in the other coalfields.

At a few of the other collieries elementary schools have been established, while the Central Provinces Manganese Ore Company and the Central India Mining Company have opened schools at all their larger mines.

37. I do not consider that under the present circumstances it would be possible to provide old age pensions for miners generally, because only a small proportion of the labour is settled on the mines, and the remainder is primarily agricultural, which works when it likes. Where the labour is permanently settled this could be done. I understand that at the railway collieries at Giridih some of the old employees are given a small pension.

39. In the Jharia and Raniganj coalfields the Mines Boards of Health are financed by a cess on the coal raised. As the coal trade has been experiencing a slump during the last few years the present time would be inopportune for inflicting fresh burdens on it by inaugurating a Welfare Fund.

VII.—Safety.

43. A new Mines Act replacing the Act of 1901 was passed in 1923 and came into operation on 1st July, 1924. Regulations under Section 29 were published for coal and metalliferous mines in September, 1926. Most of the Local Governments have taken advantage of the power granted to them under Section 30 of making rules. The Regulations with necessary modifications are modelled on the lines of the regulations in force in British mines.

Bye-laws are now being established at the coal mines. These regulations, rules and bye-laws are sufficiently comprehensive at present without being too great a burden on the community.

44. Table I shows the number of accidents which have occurred in Indian mines since 1919, and the death-rate per thousand persons employed. In the case of coal mines the death-rate per million tons is also given. Table I (A) gives the death-rates in mines in Great Britain and America since 1922.

In comparing these figures it should be remembered that in the different countries statistics are collected differently. In India the number of persons employed is based on the number of shifts worked throughout the year divided by the number of days on which the mine is worked. In Great Britain the figure is based on the number of employees who are on the books on certain dates, while in America the death-rate per thousand persons is reckoned in terms of 300 day workers. The figures for India compare favourably with regard to the death-rate per thousand persons employed, but owing to the small output per head the death-rate is high when the output is taken into consideration. This to a great extent is due to the employment of unskilled labour and to the number of hours which the Indian miner spends underground in relation to the number of hours worked. During his period of rest he is still exposed to risks.

45. *Causes.*—In British mines most of the miners enter the mine as boys and work for some time before they are allowed to work at the coal face. When permitted to work at the face they are made to work under a skilled miner for a number of years before they are considered competent to take charge of a working place.

In India a cultivator is allowed to start coal-cutting on his first day in a mine. Safety at a working place depends to a great extent on the skill and experience of the miner himself, and many accidents result from the employment of unskilled miners. In the mines of Margherita, in Assam, new recruits are not allowed to work in the chambers until after they have been employed for some time.

Table II gives accidents since 1919 according to the nature of the accident. These have been classified as shown in Table III. As in all countries, the main cause of accidents is due to falls of roof and sides. Owing to the thickness of the seams worked the Indian miner is subjected to additional dangers from falls of side when compared with home workers. Fortunately the roofs generally are good and require little timbering. In the United States of America the number of accidents from falls of roof are eight to nine times the number from falls of side, whereas in India they are about equal. The figures for 1923 were exceptionally high on account of the explosion at Parbelia colliery, when 74 persons were killed.

Those classed as due to misadventure include those which are due to carelessness on the part of the deceased so long as no breach of the regulations has occurred; the reason for this being that the findings of this department often have a great influence when the question of compensation is being settled.

46. A large percentage of accidents in Indian mines is due to illiteracy. The miners recruited from the uneducated classes do not realize the risk of dangers to which they sometimes expose themselves.

A comparatively large staff of trained men is maintained at most mines to look after the safety of miners, but conditions at a working place change rapidly and the danger cannot be entirely obviated in this manner. Negligence on the part of miners, subordinate staff and fellow workmen accounts for about 30 per cent. of the accidents, and of the 60 per cent. of accidents classified as misadventure, a large proportion would be avoided by the employment of skilled miners.

Mining is slowly becoming a hereditary occupation, and accidents from this cause should gradually diminish. Future statistics will not, in all probability, confirm this, because mining at greater depths is now necessary and the percentage of coal won from pillars—an operation which is essentially more dangerous than gallery driving—will increase year by year until the coal seams are exhausted.

The introduction of the shift system and the abolition of women should militate towards the reduction in the death-rate, as with the elimination of women the discipline should be improved.

48. Towards the end of 1922 local centres of the St. John Ambulance Association were founded in the Jharia and Raniganj coalfields, and committees were formed for the conduct of classes in first-aid to the injured. The Inspectors of Mines, Nos. 1 and 2 Circles, have been the honorary secretaries in these two fields.

According to the rules made under the Indian Mines Act there must be at least one person certified in ambulance work in a mine where the number of persons employed underground is above 50, but does not exceed 100, and for every additional completed 100 persons employed there shall be one more person holding a first-aid certificate. Candidates for first and second class coal mine managers' certificates of competency must also hold a first-aid certificate. Since first-aid classes were commenced in these districts 2,387 certificates have been issued. Although the majority of these are held by the subordinate supervising staff, quite a number of ordinary miners have obtained them.

First-aid appliances have to be kept at all coal mines, and also at the metal mines, which are deemed by Local Governments or the Chief Inspector of Mines to be of sufficient extent and importance.

The large coal and metal mines maintain a doctor, and one or more compounders to look after the health of the labour force, administer to the injured, carry out vaccinations, and help in the control and suppression of infectious diseases and epidemics.

Most of the small coal mines and many metal mines which are unable to bear the expense of maintaining a resident doctor pay a retaining fee to a local doctor.

It is also the practice to pay a worker a subsistence allowance when he is injured until such time as any claim for compensation to which he may be due has been settled. In some cases the relative is also given khoraki to stay with the injured person while he is in hospital.

49. In a country of such vast dimensions as India the frequent inspection of all mines is not feasible unless there is a very large staff of inspectors. Many of the small tin mines work only during the monsoon, during which time they are practically cut off from the outside world. All important mines are inspected at least once a year, and most of them several times. The officers of the Department of Mines generally find that the inspections by the supervising staff at the mines are carried out in a satisfactory manner. When violations are noted the owners or agents are called on for an explanation, and to remedy the defects. This request is generally complied with. Should the next inspection show that the violations have not been remedied a prosecution is instituted unless a satisfactory explanation is forthcoming.

In some cases the management institute proceedings against employees to enforce the regulations, but more often the defaulting employees are dealt with departmentally.

50. *Effect upon safety of hours, health, light and working conditions generally.*—It is a fact that in British mines the proportion of accidents occurring during the last hour of a shift is greater than that during any previous hour of the shift. This is accounted for principally by the fact that the British miner is generally in a hurry and bustle at the end of the shift in order to finish his work in time. To a small extent it is due to fatigue. In India time is of no importance to the miner, and when the shift system is introduced it will at first be equally as difficult to get the workers on the night shift out of the mine as it will be to get them in by a definite time.

From the point of view of fatigue the limitation of hours of work in a shift will not have any material effect on safety, because most Indian miners go underground with a definite object in view, and that is to cut and fill a certain number of tubs of coal, and no matter how many hours he remains underground he will not load more than that quantity. There are exceptions to this rule, such as coal miners from the Central Provinces, but the exceptions are few. Since the limitation of hours was introduced there has been no change in the number of accidents which could be attributed to this source.

The limitation of hours worked in a week may have had a slightly beneficial effect on the number of accidents, but I do not think that any statistics have been maintained to prove this.

Effect upon health.—The limitation of hours must have beneficially affected the health of the mining population. Before the introduction of the Act of 1923, a miner usually took the whole of his family, including babies, underground with him. It was not uncommon for the family to remain underground for 24 hours. In such cases the wife of the miner would return to the surface to cook food and carry it into the mine. As ankylostomiasis, or hookworm disease, is prevalent amongst the labouring classes, and particularly so amongst those working underground, the consumption of food in the mines tended to spread the disease.

Since the introduction of the limitation of hours very little food is consumed or taken into the mines, as the workers eat their principal meals before and after their day's work.

Safety in a mine is, to a certain extent, dependent upon health as a weak person does not move out of danger as quickly as a healthy person.

Effect upon safety of lighting.—In most of the mines in India open lights are used, and lighting is better than in mines where safety lamps are essential. Good lighting and ventilation play an important part in preventing accidents, as more thorough inspections of roof and sides are possible, and dangerous conditions are more easily detected.

A remarkable reduction in the number of accidents by falls of roof and sides in the chambering method of mining practised in the Assam mines has been effected by improved methods of lighting where four volt electric lamps capable of throwing a beam of 50 feet have been introduced.

Lighting at the working face in Indian mines is generally better than in British mines, where safety lamps have to be used in the majority of mines. This is proved by the fact that that disease so dreaded by miners in western countries, known as miners' nystagmus, and which is so prevalent there, is unknown in Indian mines.

Effect upon safety of working conditions.—Working conditions in the coal mines in India are, as a general rule, far better than those obtaining in British mines on account of the thickness of the seams worked and the nature of the roof stone overlying the seams. Only in the Punjab and Baluchistan are thin seams worked, and in the more important coalfields of Bengal, Bihar and Orissa and Assam an almost negligible percentage of the output is obtained from seams of less than 5 feet in thickness.

In the manganese mines very little underground work is done, and so conditions are generally good. At the Bawdwin mine, Burma, elaborate methods of securing the roof and sides are used, while the workings are kept well ventilated. As candles are used for illumination there is little smoke.

VIII.—Workmen's Compensation.

51. This Act applies to the workers in all excavations which come within the scope of the Indian Mines Act.

I have endeavoured to obtain statistics of the fatal and serious accidents which have occurred in the Jharia and Raniganj coalfields, and in which compensation has been paid or deposited or agreements registered with the Commissioners of Workmen's Compensation. The results are tabulated in Table No. VI. In columns Nos. 6 to 9 I have, after perusing the Inspector's report on each fatal accident, endeavoured to arrive at the number of accidents in which compensation might be considered to be due. In doubtful cases I have given the dependants the benefit of the doubt. It is possible that, in some of the cases included, a court might hold that compensation was not due, and *vice versa*. As I have not the requisite information in all cases, no account has been taken as to whether there were any dependants or not, and therefore such cases have been included in columns 7 and 9.

A comparison of columns 7 and 9 with 10 and 11 gives the approximate extent of the use made of the Act. In Bengal the percentage of cases in which compensation was paid for 1927 and 1928 gives 62·5 and 66 per cent. respectively. In the Dhanbad sub-division, which comprises practically the whole of the Jharia field, and a small portion of the Raniganj field, the percentages are much higher, being 91·5 and 82 per cent. respectively.

Considering that the Act is comparatively new, and that the dependants are illiterate and do not know its provisions, the figures for Jharia are satisfactory. The record of Jharia may be due to the fact that the Additional Deputy Commissioner at Dhanbad is also the Commissioner for Workmen's Compensation. All notices of accidents are sent to him as magistrate, and he is thus in a position to take steps to instruct the mine managers to deposit the compensation.

As formal inquiries are not held into all serious accidents a similar comparison cannot be made. The number of claims made and agreements deposited with the Commissioners are, however, very low. I have reason to believe that in many cases compensation is paid without the Commissioners being informed.

The effect on industry has been to increase the cost from $\frac{1}{2}$ anna to 3 or 4 annas per ton of coal, this being the insurance rate.

(v) As no cases have come to my knowledge that compensation has been withheld on account of the employers being unable to pay compensation there does not appear to be any necessity to enforce compulsory insurance.

53. I consider the present scales to be sufficient; their enhancement would encourage malingering. I think that the dependants should be allowed to apply direct to the commissioner. This would save unnecessary delay.

There are practically no cases of industrial diseases in the mines in India.

IX. Hours.

63. B. Mines.—(i) Except at a few mines there are no arrangements by custom or agreement to work a specified number of hours underground. Lodna colliery is the principal exception in the Jharia coalfield. At other coal mines in the Chanda and Lakhimpur districts and at Bawdwin lead-silver mine shifts of 8 to 9 hours are worked.

At the Bawdwin mine of the Burma Corporation, Limited, a system of shifts has been in operation for some years and there appears to be no difficulty in enforcing the system because the whole of the labour force is housed within a short distance

of the mine. At Lodna colliery a system of shifts, two shifts per day with an interval of two hours between shifts, has been in operation for over a year. The difficulties encountered in introducing the system were not great and, as the management made arrangements for full tubs to be raised from the mine and empty tubs put ready for the incoming shift during the two hours' interval between shifts, the miners quickly realized the benefit of the system and now they prefer the shift system to their old haphazard methods.

Generally the normal number of hours worked per day varies from 8 to 12, while the normal number of working hours per week is 54 for underground and 60 for surface.

(ii) The miner works very leisurely and during the time he is underground does not actually work more than 4 to 5 hours. Although during the night shift a miner may be below ground for 12 hours the remainder of the time is spent in resting and sleeping. During the week he may be underground from 30 to 54 hours during which time he works from 18 to 30 hours. Other labour, such as winding enginemen, banksmen, firemen, etc., may be considered at work during the whole period of their duty. Their work, however, is intermittent.

(iii) Labour is seldom called upon to work other than on their actual shifts. In cases of breakdown or when wagons are not supplied at the regular time they may be called upon to work extra time to repair the breakdown or to avoid the company having to pay demurrage.

64. The great majority of the miners throughout India do not work more than five days per week. In many cases they work no more than three. In the case of miners who come from distant villages they visit the mines two or three times during the week and work double shifts before going back to their villages.

Firemen, winding and haulage enginemen, pump minders and those who are on a weekly or monthly pay generally work six days per week.

65. *Effect of Restriction of Hours.*—The effect of the restriction has been to reduce the number of hours worked per day and, as a rule, miners remain underground for 8 to 10 hours daily. The restriction has not adversely affected the output per man shift which has risen since the restrictions were imposed from an output of 103 tons per person employed in coal mines in 1923 to 131 tons in 1928.

It has had a beneficial effect in that the supervising staff, haulage attendants, etc., now have a rest day because the mines are closed on one day per week. Formerly they had to work seven days because a proportion of the miners would work on every day in the week, some miners resting one day and some another.

By closing the mines on one day per week legislation has helped the colliery owner to work more economically in one direction for if the same output can be raised in six days as in seven, the wages for the seventh day of trammers, haulage hands and others are saved.

66. *Possibility of Reducing Maxima.*—From 7th April, 1930, no person will be allowed to work more than 12 hours per day. When this law has been in operation for some time and the workers have learned to work to regular hours it will probably be found possible to reduce the daily maximum.

67. In so far as the resident labour is concerned the law relating to shifts is suitable. At Bawdwin mine, as mentioned previously, there is no difficulty because the labour is resident on the mine.

In the Giridih, Assam and Bokaro coalfields practically all the labour is resident and the introduction of a shift system will not present much difficulty. In the Jharia coalfield there is a fairly large percentage of resident labour and most of the outside labour does not come from any great distance. In the Raniganj coalfield the percentage of resident labour is much smaller and most of the outside labour comes from villages several miles from the mines. To persuade the outside labour to work to definite hours will be a difficult problem.

The shift system will eventually prove a great boon to the mining industry. Many companies would have introduced the system without legislation if they could have done so without running the risk of losing their miners. It will result in better organization and better supervision whilst accidents due to persons travelling on haulage roads when coal raising is in progress will diminish.

There will be difficulty in getting outside labour to conform with the shift system especially those who travel 15 miles or more to their work. When more labour is settled on the collieries there will be less trouble in enforcing the law in this respect.

68. *Possibility of Introducing an Effective Daily Limitation.*—The law relating to shifts will limit the hours to 12. Until the law has been firmly established and operated for a number of years, I am of the opinion that it would be a mistake to introduce further legislation. The introduction of further legislation with respect to hours of

work would at present not only prove a great handicap to the owners, but would result in a reduction in output. The miner in India is slow to realize the advantages accruing from new legislation, and further restriction of hours at present might result in the miner seeking other occupations.

Indian labour is not easily amenable to discipline and particularly when such labour has to be recruited far from the industrial centres. The withdrawal of women from the mines will tend to improve the domestic conditions of the miners as regards meals and the arrangements for shifts might then become easier to introduce. I am of the opinion that no further legislation in this respect should be enacted until the women have been withdrawn.

69. *Intervals.*—(i) Work in Indian mines is not hard. The miner is a leisurely individual. He rests after coming down the pit. Again when he reaches the face, between the filling of tubs and after he has filled his tubs he rests before returning to the surface. He does not work so intensively as his confrère in Europe or America but the enervating atmospheric condition and the manner in which he feeds himself may account for this.

(ii) It is unusual for an Indian miner to take his meal below ground. He usually takes a light meal in the morning and his main meal after returning to the surface.

In open workings there is usually an interval of about two hours during the heat of the day when his meals may be taken. It is also the custom of surface workers to take an interval of about two hours.

70. Usually Sunday is recognized as a day of rest, but in addition the miner takes the bazaar day. He avails himself of holidays for all his festivals and as he is under no contract he leaves the colliery when he likes. On the whole he is improvident and cares little for the morrow and works only to live.

71. With the passing of the Indian Mines (Amendment) Act, 1928, I consider that for the time being the existing provisions are adequate. After the 12 hours maximum shift has been in operation for some years the labour will have been broken into working in shifts and the matter of reducing the number of hours per shift might be reviewed. As has been pointed out before the miner does not actually work anything like 12 hours a day but likes to linger over his work.

72. Although section 25 of the Indian Mines Act empowers managers in certain emergent circumstances to employ persons in excess of 54 hours underground or 60 hours on surface few emergencies have arisen when advantage has been taken of this provision as only the number of hours worked per week are restricted. When the hours worked per day are restricted there will probably be more occasions when advantage will be taken of the exempting provisions.

X. Special Questions Relating to Women, Young Adults and Children.

90. *B. Mines—Effect of Act of 1923.*—Many persons maintained that when the children were taken out of the mine the women would not go down and that the men would also be affected but this fear did not materialize. If any labour did leave the mine for this reason the number was insignificant and I have never heard of any complaints on this score. It did, however, prevent the suckling mothers from going underground. It is rarely that any child is now found in a mine as most of the managers are very strict in this respect.

Suitability of certification provisions.—The provisions appear to be quite suitable but are rarely put into operation. Managers have always, at the request of the inspectors, ceased to employ any child about whose age there may have been any doubt.

91. *Exclusion of Women*—(i) *Suitability of regulations.*—With a few exceptions little hardship has so far been noticed as most of the larger mines took steps gradually to reduce the number of women before the regulations came into operation. Where this was not done some dislocation took place. In many mines the number is well below that permitted. The provisions appear to be suitable but some difficulty has arisen owing to the difference in the number of persons presenting themselves for work daily.

(ii) *Probable effects on the industry.*—Little, if any, effect will be apparent for two or three years. The large mine owners will introduce new methods to counteract the exclusion of women as the reduction proceeds. Much of the work performed by women underground is entirely unnecessary. Practically all women are employed as coal carriers and in 50 per cent. of cases the coal could be loaded into the tub at the face. Miners will have to be taught to load their own coal at the face with a shovel and it will be necessary for the owners to lay tub tracks up to the face.

In the well-equipped mines recourse will be made to modern methods of loading coal by machinery and systems of working will be modified to meet the new conditions. At most mines the difficulty will be overcome by recruiting male coal carriers.

If mechanical loaders are introduced and worked on a suitable system there should be little, if any, material increase in the cost of production and the workers will be able to earn higher wages.

I am convinced that the prohibition of women underground will eventually prove a great benefit to the industry in that more up-to-date methods of mining will be introduced; the unskilled type of worker, who is a cultivator half of the year and a miner when his finances force him to be so, will gradually disappear and a community of wholtime miners will be raised and housed at the mines; where mechanized mining is introduced the worker will earn better wages.

In the case of owners who are unable to equip their collieries there will be an increased cost of production, as the miner will demand an increased rate to make up for the loss of his wife's earning. The present loaders are mainly women who receive smaller wages than the men.

It is probable that in order to make up the deficiency in the number of workers more up-country unskilled labour will be recruited.

(iii) *Economic effect on workers.*—At first there is bound to be a decrease in the amount earned by the family unless the women can find work on the surface. As there will be a surplus of women for this work the rates may decrease but the opposite will be the case underground. The loss can, to a certain extent, be made up by more regular attendance. If it has this effect it should be a help to the industry. Where the work is mechanized the miner who can adapt himself to this type of mining will be able to make up the deficiency as with an increased output his earning will increase.

(iv) *Speed of withdrawal.*—The speed of withdrawal gives adequate time for the industry to adapt itself to new methods and conditions. In some quarters there is a feeling that the women should be taken out at once. This, however, would probably hit the smaller collieries very hard. I think, however, that the time could have been shortened without much ill effect.

XII. Wages.

96. The accompanying tables show the weekly earnings for the years 1923 to 1925 and the daily earnings from 1926 to 1928 in the principal mining areas in India.

Wages in the Jharia Coalfield.

	Weekly earnings.			Daily earnings.		
	1923. Rs.	1924. Rs.	1925. Rs.	1926. Rs.	1927. Rs.	1928. Rs.
Miners (underground) ..	4-12-0	4-12-0	4-0-0	0-15-0	0-14-3	0-13-6
„ (open workings) ..	—	—	—	—	0-14-9	0-14-0
Other workers (underground)	3-12-0	3-12-0	3-9-0	0-15-0	0-9-9	0-9-9
					to	to
					0-10-9	0-10-9
„ (open workings)	—	—	—	—	0-7-9	0-5-6
					to	to
					0-9-9	0-7-9
Females (underground) ..	2-8-0	2-8-0	2-8-0	0-7-0	0-8-9	0-8-9
„ (open workings) ..	—	—	—	—	0-8-6	0-8-3
Males (surface) ..	3-15-0	3-15-0	3-8-0	0-8-0	0-9-3	0-8-6
Females (surface) ..	2-7-0	2-7-0	2-4-0	0-7-0	0-7-0	0-6-9

Wages in the Raniganj Coalfield.

	Weekly earnings.			Daily earnings.		
	1923. Rs.	1924. Rs.	1925. Rs.	1926. Rs.	1927. Rs.	1928. Rs.
Miners (underground) ..	3-8-0	3-6-0	3-6-0	0-9-0	0-12-9	0-12-6
„ (open workings) ..	—	—	—	—	0-13-3	0-9-0
Other workers (underground)	3-4-0	3-0-0	3-0-0	0-9-0	0-9-3	0-9-0
					to	to
					0-11-0	0-10-3
„ (open workings)	—	—	—	—	0-8-3	0-7-0
					to	to
					0-10-0	0-8-0
Females (underground) ..	2-0-0	1-14-0	1-14-0	0-5-6	0-7-3	0-7-0
„ (open workings) ..	—	—	—	—	0-7-0	0-6-0
Males (surface) ..	2-10-0	2-10-0	2-10-0	0-7-6	0-8-0	0-8-6
Females (surface) ..	1-12-0	1-8-0	1-8-0	0-4-6	0-6-0	0-5-9